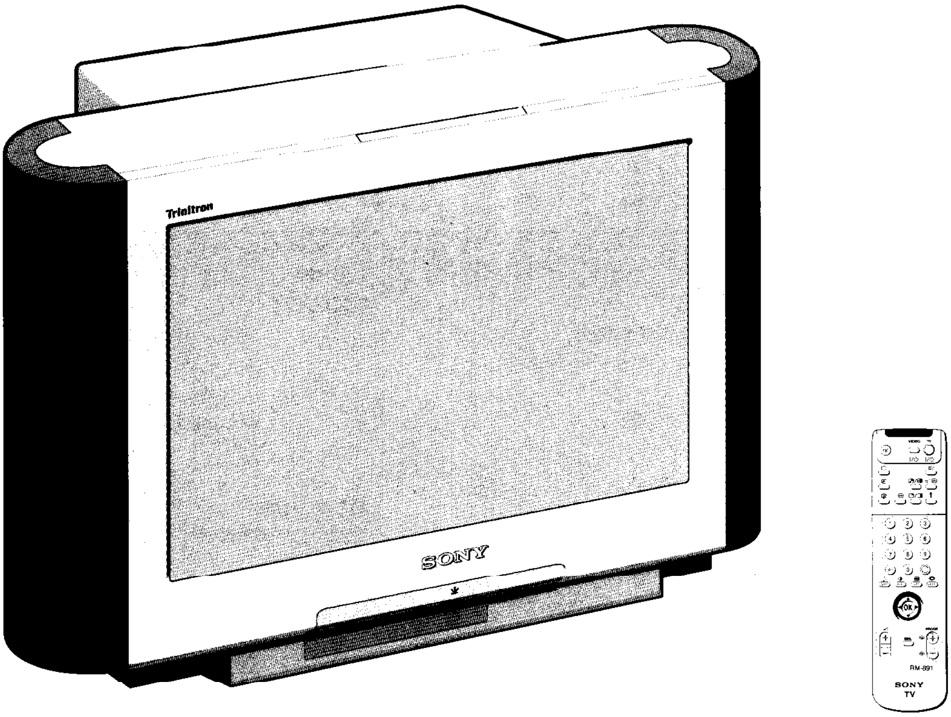
Self Diagnosis
Supported model

SERVICE MANUAL

AE-5 CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
KV-29FC60A	RM-891	Italian	SCC-Q12C-A	KV-29FC60E	RM-891	Spanish	SCC-Q14C-A
KV-29FC60B	RM-891	French	SCC-Q13C-A	KV-29FC60K	RM-891	OIRT	SCC-Q16D-A
KV-29FC60D	RM-891	AEP	SCC-Q11C-A	KV-29FC60R	RM-891	OIRT	SCC-Q16C-A



MICROFILM

TRINITRON® COLOR TV

SONY®

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
Italian	B/G/H,D/K	GERMAN Stereo	ITALIA VHF : A-H2 (C) UHF : 21-69 PAL B/G/H VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05,M1-M10,U1-U10 DK VHF : R01-R12 UHF : R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, D/K,L,I	GERMAN/NICAM Stereo	L VHF : F02-F10 UHF : F21-F60 CABLE : B-Q B/G/H VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF : A-H2 (C) UHF : 21-69 I UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H/ VHF : E2-E12 : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF : A-H2 (C) UHF : 21-69 D/K VHF : R01-R12 UHF : R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G/H/ VHF : E2-E12 : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF : A-H2 (C) UHF : 21-69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, DK	KV-29FC60K GERMAN/NICAM Stereo KV-29FC60R GERMAN Stereo	B/G/H VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 D/K VHF : R01-R12 UHF : R21-R69	PAL NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	29FC60A	29FC60B	29FC60D	29FC60E	29FC60K	29FC60R
Power Consumption	130W	130W	130W	130W	130W	130W

[PICTURE TUBE]	
	Super Trinitron Approx. 72 cm (29 inches) (Approx. 68 cm picture measured diagonally) 110 degree deflection

Input/Output Terminals

[REAR]

⇔1 /→○○○ 21-pin Euro connector (CENELEC standard).
- Inputs for Audio and Video signals.
- Inputs for RGB.
- Outputs of TV Video and Audio signals.

⇔2/→ⓢ 21-pin Euro connector
- Inputs for Audio and Video signals.
- Inputs for S video.
- Outputs forVideo and Audio signals (selectable).

⇔3/→ⓢ 21-pin Euro connector
- Inputs for Audio and Video signals.
- Inputs for S video.

External speaker terminals : 2-pin DIN (5)

[FRONT]

Video output - phono jack
Audio inputs - phono jacks
S Video input - 4 pin DIN
Headphone jack : stereo minijack

Sound output	2x25W (Music Power)
Power requirements	220 - 240V
Dimensions	Approx 800x581x496mm
Weight	Approx 53 kg
Supplied accessories	RM-891 Remote Commander (1) IEC designated R6 battery (2)
Other features	NICAM*, FASTEXT, TOPTEXT * (KV-29FC60B/29FC60E/29FC60K only)

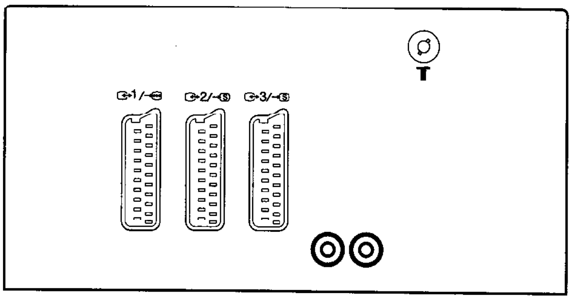
[RM-891]

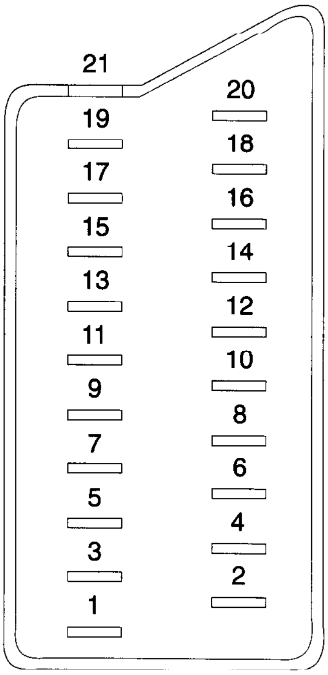
Remote control system	Infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimensions	Approx 56x210x24mm (w/h/d)
Weight	Approx 110g (Not including battery)

Design and specifications are subject to change without notice.

Model Name Item	KV-29FC60A	KV-29FC60B	KV-29FC60D	KV-29FC60E	KV-29FC60K	KV-29FC60R
Pal Comb	OFF	OFF	OFF	OFF	OFF	OFF
PIP	ON	ON	ON	ON	ON	ON
RGB Priority	ON	ON	ON	ON	ON	ON
Woofer Box	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON	ON
Scart 4	ON	ON	ON	ON	ON	ON
Projector	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	ON	ON
Norm I	OFF	ON	OFF	OFF	OFF	OFF
Norm D/K	ON	ON	ON	ON	ON	ON
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF
Teletext	ON	ON	ON	ON	ON	ON
Nicam Stereo	OFF	ON	OFF	ON	ON	OFF
Language Preset	Italian	French	German	Spanish	OIRT	OIRT

21 pin connector

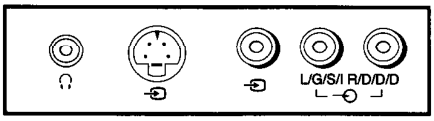




Pin No	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
2	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedence : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedence : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedence : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	–	–	Red input	0.7 +/- 3dB, 75 ohms, positive
	–	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedence : 75 ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	○	–	–	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
	–	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Pin No.	Signal	Signal Level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75 ohm, positive Sync.



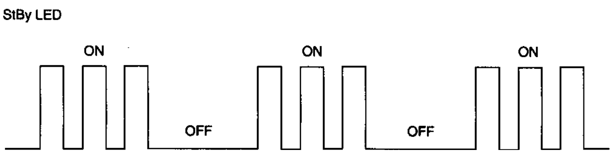
AE-5 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the AE-5 chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1., non fatal errors are reported using this method.

Diagnostic Item Description	No of times Standby LED Flashes	Probable cause Location	Detected Symptoms
Power does not turn on	Does not light	Power cord is not plugged in Fuse is burned out	Power does not come on No power is supplied to the TV AC power supply is faulty
+B Overcurrent (OCP)	2 times	H.OUT (Q6803/6804) is shorted. (D Board) Linearity FET (Q6806) is shorted. (D Board) IC6604 Power IC is shorted. (D Board)	Power does not come on Load on power line has shorted
Vertical Deflection stopped	4 times	+15V is not supplied R6835 open (D Board) -15V is not supplied R6834 open (D Board) IC6700 is shorted (D Board)	Vertical deflection pulse has stopped Power line has shorted

ERROR	**LED ERROR COUNT**
No error	00
Not allowed (may be confused with Sircs response flash!)	01
Over Current Protection	02
Over Voltage Protection	03
Vertical Protection	04
AKB	05
H - Protection	06
Speaker Protection	07
General IIC Line 0 error	08
MEGATEXT	09
NVM	10
Main colour decoder	11
Feature Box	12
D/A converter	13
Backend	14
Multi sound processor	15
Auto Wide	16
External RAM	17

Flash Timing Example : e.g. error number 3



ERROR DETECTION MONITOR

Device acknowledge is used to check IIC errors. Device acknowledge is checked by sending an IIC start sequence during CRT power on. Each device is checked three times, if there is no acknowledge after every attempt, it will be regarded as an error.
There are three steps to check errors

1. IIC line 0
   If all devices except the NVM are errors, IIC line 0 error is displayed
2. Board check
   If all devices mounted on one board have errors, board error is displayed
3. Each device check
   If IIC line error and board error are not detected then the device with an error is displayed

The detected errors can be displayed as follows:

1. Error Monitor Menu
2. Error Reader

1. ERROR MONITOR MENU

The error monitor menu is displayed by selecting TT33. The following menu will be displayed:

2. ERROR READER DISPLAY

The error reader display is connected to the service connector to read actual error codes. The part number for the error reader display is S-188-900-10. Once an error has been detected it will then be displayed on the two digit error reader. The errors displayed refer to the following table :

	Send Data to Error Reader			
Error Code	Data high	Data Low	Error type	Function
00 00h	-	f0h	no device	
Gen.IIC Error				
00 01h	f0h	01h	IIC 0 line	
00 02h	f0h	02h	IIC 1 line	not used
Board Error				
01 00h	f1h	00h	A Board	
02 00h	f2h	00h	B1 Board	
03 00h	f3h	00h	B2 Board	
04 00h	f4h	00h	BP Board	
05 00h	f5h	00h	D1 Board	
06 00h	f6h	00h	E Board	
07 00h	f7h	00h	J Board	
Device Error				
A Board				
01 01h	f1h	01h	CXA1875	Port Expander
01 02h	f1h	02h	TU1326	Main Tuner
01 03h	f1h	03h	TU1350	Sub Tuner
B1 Board				
02 01h	f2h	01h	P83C654	Feature Box
02 02h	f2h	02h	SDA9280	D/A Converter
B2 Board				
03 01h	f3h	01h	SAA4977	Basic
03 02h	f3h	02h	SAA4950	Memory
BP Board				
04 01h	f4h	01h	CXD2069	MID
D1 Board				
05 01h	f5h	01h	CXA8070	Dynamic Conv.
05 02h	f5h	02h	CXA1875	Port Expander
E Board				
06 01h	f6h	01h	CXD2100	Backend
J Board				
07 01h	f7h	01h	CXD2057	Auto Wide
07 02h	f7h	02h	SDA9288	PIP
07 03h	f7h	03h	TDA9320	Sub Colour
07 04h	f7h	04h	TDA9320	Main Colour
07 05h	f7h	05h	CXA1875	Sub Sound
07 06h	f7h	06h	TDA7309	HP Amp
07 07h	f7h	07h	TEA6422DT	Audio SW
07 08h	f7h	08h	MSP3410D	Sound Proc
07 09h	f7h	09h	TC9337F	Sound DSP

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE'LANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÈ LORS DE TOUT DÈPANNAGE. LE CHÁSSIS DE CE RÈCEPTEUR EST DIRECTMENT RACCORDÈ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÈCURITÈ !!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÈMAS DE PRINCIPE, LES VUES EXPLOSÈES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÈCURITÈ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPSANTS SONY DONT LE NUMÈRO DE PIÈCE EST INDIQUÈ DANS LE PRÈSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÈS PAR SONY.

SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Overview

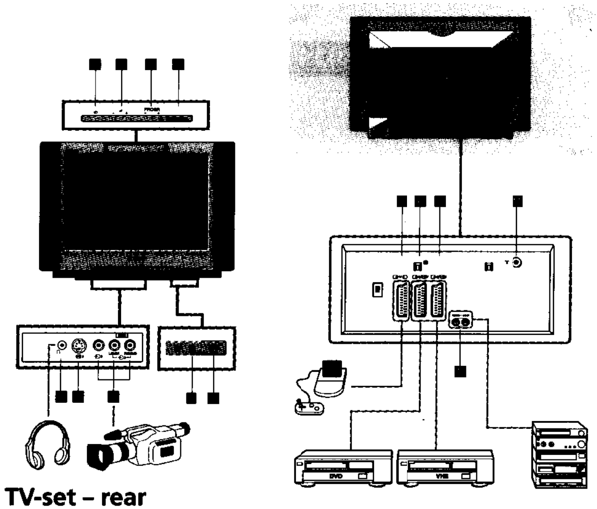
ℹ This section briefly describes the buttons and controls on the TV set and the Remote Control. Open the flaps at the front and back of his Instruction Manual for detailed illustrations. For more information refer to the page numbers given in the overview.

Remote Control

Symbol	Description	See page
① TVI/⏻	TV: standby mode on/off	32
② ⊞	TV: on-screen display Teletext: index page	32 42
③ ⇥ ⊕	Selecting of input source Teletext: Freezing a subpage	44 42
④ ⊟/⊡	PIP: Swapping the screens	41
⑤ ⬆	PIP: Selecting the source	41
⑥ ◔/◑	PIP: Switching on and off	41
⑦ 1, 2, ... 9, 0	Number buttons	32
⑧ ○	Back to the channel last selected	32
⑨ ⊞	Selecting of screen format	32
⑩ ▦	No function on this set	
⑪ ⓞ	Joystick for menu selection Press OK to confirm	31
⑫ MENU	Switching on and off of Menu system	31
⑬ PROGR +/– ▲▼	TV: Channel selection up- and downwards Teletext: Page selection up-and downwards	32 42
⑭ ◿ +/–	Volume control	32
⑮ ☼	Picture mode	32
⑯ ♪	Equaliser mode	32
⑰ -/--	Selection of double digit channel numbers	32
⑱ ⊠	Freezing of TV picture	32
⑲ ⊡	No function on this set	
⑳ ☰	Teletext: Switching on	42
㉑ ▢	TV: Selecting of TV mode Teletext: Switching off	32 42
㉒ ☒	Muting of sound on/off	32
㉓ VIDEOI/⏻	VCR: Standby mode	45
Buttons under cover		
㉔ ◎	Displaying of the time	32
㉕ CH +/– VTR 1 2 3 4 MDP ◀◀ ▶ ▶▶ ■ ❚❚ ●	VCR operation Video equipment selector Buttons for VCR operation	45
㉖ →•←	Resetting of picture setting	32

TV-set – front and top

Symbol	Description	See page
A ∩	Headphone jack	46
B ⇥3	S-video input jack	44
C ⇥3, ⇥3	Phono video/audio inputs	44
D ⏻	Indicator for Standby mode	32
E ⓘ	Power switch	32
F ⇥	Selecting of input source	44
G ◿ +/–	Volume control	32
H PROGR +/–	Channel selection up- and downwards	32
I CONTROL	Control panel: Switching on/off	32



TV-set – rear

Symbol	Description	See page
J ⇄1/⇥1	21-pin Euro connector (Scart)	44
K ⇄2/⇥2	21-pin Euro connector (Scart)	44
L ⇄3/⇥3	21-pin Euro connector (Scart)	44
M ╥	Aerial socket	30
N ⇄ L/G/S/I R/D/D/D	Audio phono jacks	46

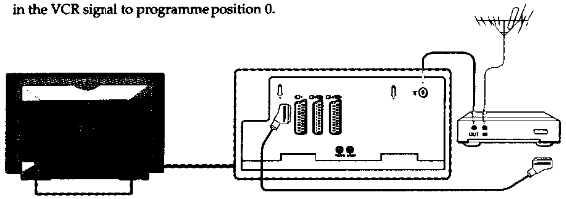
i The following chapter contains all the steps necessary when first installing your TV and the basic TV functions.

Step 1 Installation

A Connecting the TV Set

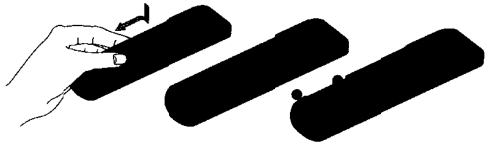
1 Connect the TV set to the mains socket (220-240 V.AC, 50 Hz).
2a Connect a conventional aerial cable to the socket marked ╥ M on the rear of the TV set.
or
2b Connect your Satellite Receiver to one of the Scart connectors J K L of the TV set.

i **When connecting a VCR to your TV set:**
We recommend that you use the preset function Manual Programme Preset (page 33) to tune in the VCR signal to programme position 0.



B Inserting the Batteries into the Remote Control

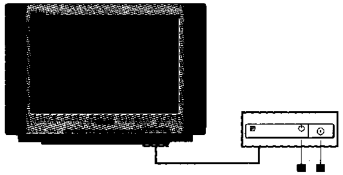
i Make sure to insert the batteries using the correct polarities.
Dispose of exhausted batteries according to your local regulations.



C Switching on the TV Set

- Press the switch ⓘ E at the front of the TV set.

i If the standby mode indicator ⏻ D on the TV is lit, press TV I/⏻ ● on the Remote Control to switch on the TV set.

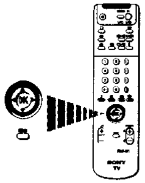


Step 2 Basic Presetting

A The Menu System

i Your TV uses an on-screen menu system to guide you through the operations. Use the following buttons on the Remote Control to operate the menu system:

- Press MENU ● to switch the menu on and off.
- Use ◄, ►, ▲, ▼ of the joystick ● to select within the menu system.
- Press OK to store.
- When menu is switched off:
  Press ◄ to return to the last menu screen.



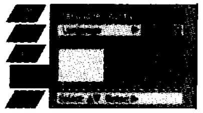
B Selecting Language and Country

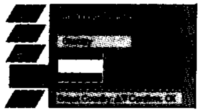
1 Press the MENU ● button.
↳ The menu Language/Country appears on the screen.
2 Push the joystick ● to ►. Push the joystick ● to ▼ to select the language. Press OK ●.
↳ The menus appear in the selected language.
3 Push the joystick ● to ▼ to select Country. Push the joystick ● to ►.
4 Select the country in which you will operate the TV set using ▼ or ▲.

i Select Off if you wish an automatic tuning **without** ACI (fast presetting with a given channel sequence).

- Confirm by pressing OK ●.

↳ The menu Auto Tuning appears.



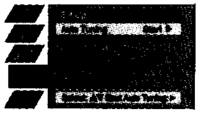


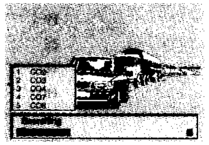
C Automatic Tuning In of Channels

- Push the joystick ● to ► for more than 2 sec..

↳ After all available channels are stored, the TV goes back to the programme position with which you started the automatic tuning. Your TV is now ready for use.

◆ To stop the automatic turing: Press OK ●.
◆ If you wish to change the sequence of the stored channels, go to Sorting Programme Positions in Advanced Presetting.
◆ If you need to change or repeat the tuning afterwards (e.g. when you move house) : select the menu Auto Tuning in the Set Up 🗂 menu.

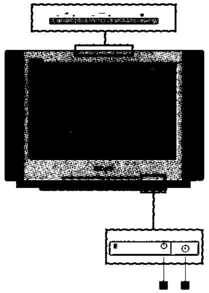


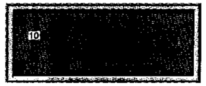


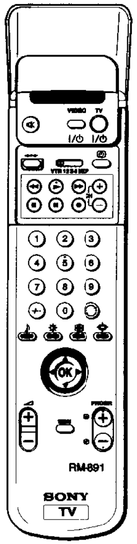
Step 3 Basic TV operation

ℹ This section explains the most important functions for the daily use of your TV set. When using the control panel on the top of the TV set, first press CONTROL I, then F, G or H.

Function	Operation
Switching on/off	● Press ⓘ E on the TV set. ℹ To save energy, we recommend to switch off the TV completely when set is not in use.
Switching off temporarily (Standby mode)	● Press TV I/⏻ ●. ↳ TV is now in standby mode. Indicator ⏻ D lights up. ℹ After 15 min. without any TV signal and no pressing of a button, the TV automatically goes into standby mode.
Switch on from standby mode	● Press TV I/⏻ ●, PROGR +/– ● H or any number button ●.
Selecting channels	● Press PROGR +/- ● H or the number buttons ●. For a double digit number first press -/-- ●, then the two number buttons.
Using the Channel overview	● Press OK ●. Push to ▼ or ▲ to select a channel, push to ▶ to confirm.
Going to the channel last selected	● Press ◌ ●.
Adjusting the volume	● Press ◿ + or – ● G.
Muting the sound	● Press 🔇 ● to switch sound off or on.
Selecting Equaliser mode (See also page 39)	● Press ♪ repeatedly ● to select one of the following modes: Personal, Vocal, Jazz, Rock, Pop or Flat
Selecting Picture mode (see also page 38)	● Press ☼ repeatedly ● to select one of the following modes: Personal, Movie or Live.
Freezing the picture	● Press ⊞ ● if you wish to make a note of an information, e.g., a telephone number. Press again to return to the normal TV screen.
Changing the screen format	● Press ⬌ ● repeatedly to select 4:3 or 16:9 (imitation of wide screen format).
Resetting picture/sound settings to factory levels	● Open the cover of the Remote Control. Press →•← ●.
Displaying on-screen indications	● Press ⊞ ● to switch indications on or off.
Displaying the time (only when teletext is broadcast)	● Open the cover of the Remote Control. Press ◷ ● to switch time on or off.
Using Teletext (see also page 42)	● Press ⊟ ● to switch on. Press ▢ ● to switch off. Select a page using the number buttons ●. E.g. for page 125 press 1,2 and 5. Select the index page by pressing ⊞ ●.
Viewing the input signal of a connected device (see also page 44)	● Press ⇥ ● repeatedly to select the desired input source. Press ▢ ● to return to the TV picture.







Advanced Presetting

Sorting of Programme Positions

ℹ After having used Automatic Tuning of channels you may wish to rearrange the order of the channels.

1 Press MENU. Select the symbol ⊟ using ▼. Push to ▶.

2 Select Programme Sorting using ▼. Push to ▶ to enter.

3 Select the programme position of the channel you wish to sort using ▲ or ▼. Push to ▶ to enter.

4 Move the channel to the new programme position using ▲ or ▼. Store by pressing OK.

↳ The channel is now at the new position. The other programme positions move accordingly.

5 To sort other programme positions repeat steps 3 to 4.

6 Press MENU to return to the normal TV screen.

Manual Tuning In of Channels

ℹ Use this function to preset channels or a video input source one by one to programme positions of your choice.

1 Press MENU. Select the symbol ⊟ using ▼. Push to ▶.

2 Select Installation using ▼. Push to ▶ to enter.
Select Manual Programme Preset using ▼. Push to ▶ to enter.

3 Select the programme position by pushing to ▲ or ▼. Push twice to ▶.

↳ The column SYS is highlighted.

4 Select the TV system using ▲ or ▼. Push to ▶ to enter.

ℹ Available TV systems are B/G for western European countries, D/K for eastern European countries, EXT for a video input source (please go to step 5c after selecting EXT)

↳ The column CH is highlighted.

5 Select your method for the channel tuning using ▲ or ▼. Push to ▶ to enter.

ℹ You have the choice between **C** for a terrestrial channel, **S** for a cable channel, **F** for direct frequency input.

a **Direct Channel Input - S, C or F**

ℹ For channel numbers input a two digit number, for the channel frequency a three digit number.

- Select the two or three digits by using the number buttons 0 to 9.
- To start the search and to store the channel, press OK.
- To preset other channels repeat steps 3 to 5a.

b **Channel search (SEARCH)**

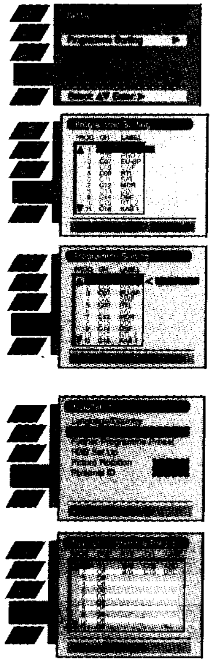
ℹ Use Search if you do not know the channel number or frequency

- Start the search for the next available channel by pushing to ▼.
- Store the channel by pressing OK or continue the search by pushing again to ▼.
- To search for other channels repeat steps 3 to 5b.

c **For video input sources (EXT)**

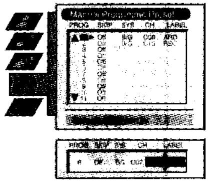
- Select the Video Input source using ▲ or ▼.
- Store your selection by pressing OK.
- To allocate other sources repeat steps 3 to 5c.

6 Press MENU to return to the normal TV screen.



Captioning a Station Name

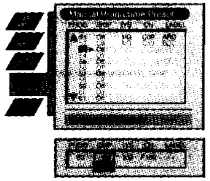
During presetting the channels are usually labelled automatically.
You can, however, individually name a channel or a video input source.



1. Press MENU. Select the symbol ⊟ using ▼. Push to ▶.
2. Select Installation using ▼. Push to ▶ to enter.
   Select Manual Programme Preset using ▼. Push to ▶ to enter.
3. Select the programme position of the channel or the video source you wish to label by pushing to ▼ or ▲. Push repeatedly to ▶ until the first element of the position LABEL is highlighted.
4. Select a number, a letter, + or a blank using ▲ or ▼. Push to ▶ to confirm.
   Select the other four characters in the same way.
5. Store your selection by pressing OK.
6. To label other channels or video sources repeat steps 3 to 5.
7. Press MENU to return to the normal TV screen.

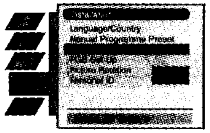
Skipping of Programme Positions

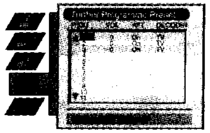
In case of 100 programme positions there may be unused positions, which you can skip in the menu Manual Programme Preset. When changing channels with the PROGR +/– buttons they do then not appear.
You can, however, still select them using the number buttons.



1. Press MENU. Select the symbol ⊟ using ▼. Push to ▶.
2. Select Installation using ▼. Push to ▶ to enter.
   Select Manual Programme Preset using ▼. Push to ▶ to enter.
3. Select the programme position you wish to skip by pushing to ▲ or ▼.
   Push to ▶ to enter.
   The column SKIP is highlighted.
4. Select ON using ▼.
5. Store by pressing OK.
6. To skip other programme positions repeat steps 3 to 5.
7. Press MENU to return to the normal TV screen.

Using of Further Programme Preset





Using the menu Further Programme Preset you can

a) individually adjust the volume level of each channel.

b) improve the quality of a weak channel (picture or sound distortions) with manual fine tuning.

c) preset the AV output for programme positions of those channels with scrambled signals (e.g. from a Pay TV decoder). In this way a connected VCR records the unscrambled signal.

1. Press MENU. Select the symbol ⊟ using ▼. Push to ▶.
2. Select Installation using ▼. Push to ▶ to enter. Select Further Programme Preset using ▼. Push to ▶ to enter.
3. Select the programme position of the desired channel by pushing to ▲ or ▼. Push repeatedly to ▶ to select:
   VOL (Volume Offset), AFT (Automatic Fine Tuning) or DECODER.
   The selected item changes colour.

4a VOL
Push to ▲ or ▼ to adjust the volume level (range -7 to +7) of the channel.
Store by pressing OK.
Repeat steps 3 and 4a if you wish to adjust the volume level of other channels.

b AFT
Push to ▲ or ▼ to fine tune the channel (range -15 to +15). Store by pressing OK. Repeat steps 3 and 4b if you wish to fine tune other channels.

c DECODER
Push to ▲ or ▼ to select AV1 (Euro AV socket 1) or AV2 (Euro AV socket 2) as output for the video source on this programme position. Store by pressing OK.
Repeat steps 3 and 4c if you wish to preset the AV output of other video sources.

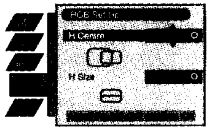
Should you use Auto Tuning afterwards, this setting will be cancelled.

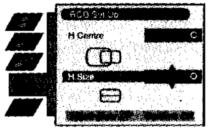
5. Press MENU to return to the normal TV screen.

Adjusting the Picture Geometry for an RGB Source

i When connecting an RGB source such as a Sony playstation you may need to readjust the picture geometry.

1 Select the connected RGB source ⊖ by pressing ⊕ repeatedly.
2 Press MENU. Select the symbol ⊟ using ▼. Push to ▶.
3 Select Installation using ▼. Push to ▶ to enter. Select RGB Set Up using ▼. Push to ▶ to enter.
4 Select H Centre by pushing to ▶. Adjust the centre of the picture (range from -10 to +10) using ▲ or ▼. Store by pressing OK.
5 Select H Size using ▼. Push to ▶ to enter. Adjust the horizontal coordinates (range from -10 to +10) using ▲ or ▼. Store by pressing OK.
6 Press MENU to return to the normal TV screen.

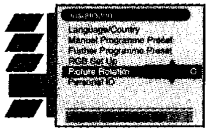

RGB Set Up
H Centre
H Size


RGB Set Up
H Centre
H Size

Adjusting the Picture Rotation

i Because of the earth magnetism the picture might slant. In this case you can readjust the picture.

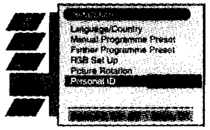
1 Press MENU. Select the symbol ⊟ using ▼. Push to ▶.
2 Select Installation using ▼. Push to ▶ to enter. Select Picture Rotation using ▼. Push to ▶ to enter.
3 Adjust the Picture Rotation (adjusting range -5 to +5) by pushing to ▲ or ▼. Store by pressing OK.
4 Press MENU to return to the normal TV picture.


Installation
Language/Country
Manual Programme Preset
Further Programme Preset
RGB Set Up
Picture Rotation
Personal ID

Inputting Your Personal ID

i You can programme your TV with a safety code, so that you can be traced if your TV is stolen and recovered. This code can only be input once! Make sure to write it down in this Instruction Manual.

1 Press MENU. Select the symbol ⊟ using ▼. Push to ▶.
2 Select Installation using ▼. Push to ▶ to enter. Select Personal ID using ▼. Push to ▶ to enter.
3a Select the first of a total of 11 characters (letter, number, + or a blank) by using ▲ or ▼.
b Push to ▶ to go to the next character.
c Repeat a and b for all characters.
4 Store by pressing OK.
5 Press MENU to return to the normal TV screen.


Installation
Language/Country
Manual Programme Preset
Further Programme Preset
RGB Set Up
Picture Rotation
Personal ID

Presetting and Labelling of Input Sources

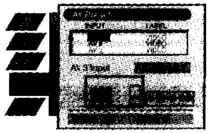
1 Press MENU. Select the symbol ⊟ using ▼. Push to ▶.
2 Select AV Preset using ▼. Push to ▶ to enter.
3 Select the desired AV input (AV 1, 2 or 3) using ▲ or ▼. Push to ▶ enter.

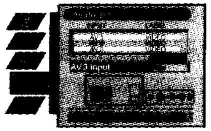
i After each step you have the choice between memorizing (press OK) or going to the next item (push to ▶).

4 **To label the source:**
a Push to ▶ to select Label.
b Select the first character using ▲ or ▼. Push to ▶ to confirm.
c Repeat step b to select the other 4 characters.
d Store by pressing OK.
5 Repeat steps 3 to 4 for the other AV inputs.
6 **Selecting the AV3 Input Source:**

i In case of AV3 you have the choice between the front AV3 sockets **B** **C** or the rear Scart 3 **L** connector.

a Push to ▼ to select AV3 Input. Push to ▶ to enter.
b Select Front or Rear using ▲ or ▼.
c Store by pressing OK.
7 Press MENU to return to the normal TV screen.


AV Preset
INPUT
LABEL
AV1
AV2
VIDEO
AV3 Input


AV Preset
INPUT
LABEL
AV1
AV2
VIDEO
AV3 Input

Advanced TV operation

Adjusting Picture and Sound

i Picture and sound are adjusted at the factory. You can, however, adjust them individually.

1 Press MENU.
Select the symbol for Picture or ♪ for Sound using ▲ or ▼.
Push to ▶ to enter.
The menu Picture or Sound Control is displayed.

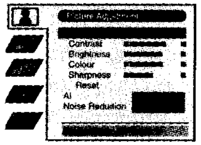
2 Select the desired item using ▲ or ▼. Push to ▶ to enter.

3 Adjust the selected item using ▲, ▼, ▶ and ◀. Press OK to store.

i Refer to the tables on this and the following page for more information.

4 Repeat steps 2 and 3 to adjust other items.

5 Press MENU to return to the normal TV screen.



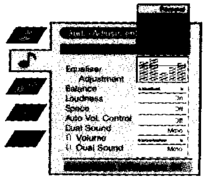
Picture Control

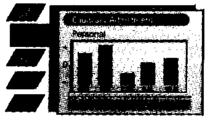
Item	Effect/Operation
Picture Mode	▼ Personal (for individual settings) Movie (for movie broadcasts) ▲ Live (for live broadcasts)
Contrast	Less ◀ ▶ More
Brightness*	Darker ◀ ▶ Brighter
Colour*	Less ◀ ▶ More
Hue**	Reddish ◀ ▶ Greenish
Sharpness*	Softer ◀ ▶ Sharper
Reset	Resets picture to the factory preset levels
AI (Artificial Intelligence)	▼ Off: normal ▲ On: Automatic optimization of contrast level according to the TV signal
Noise Reduction	▼ Off: Normal ▲ On: Reduces picture noise in case of a weak broadcasting signal

* Only if Personal is selected in Picture Mode
** Only available for NTSC colour signal (e.g. US video tapes)

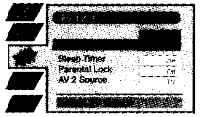
Sound Control

Item	Effect/Operation
Equaliser Mode	Select between the following sound settings ▼ Personal Vocal Jazz Rock Pop ▲ Flat (fixed setting, cannot be adjusted)
Equaliser adjustment	i You can adjust the mode selected in Equaliser mode by cutting and boosting of 5 selected frequency bands. ! Only the changes made in Personal can be stored, the others return to factory setting. ● Select the desired bar using ▶ or ◀, adjust using ▲ and ▼. Press OK to store.
Balance	▲ More left ▼ More right
Loudness	▲ Off: Normal ▼ On: For music broadcasts
Space	▲ Off: Normal ▼ On: Special accoustic effect
Auto Volume Control	▼ On: volume level of the channels will stay the same independent of the broadcast signal (e.g. in case of advertisements) ▲ Off: volume level changes according to the broadcast signal
Dual Sound	● For a bilingual broadcast: A for channel 1◀ ▶B for channel 2 ● For a stereo broadcast: Stereo◀ ▶Mono
Headphones 🎧 Volume 🎧 Dual Sound	Less ◀ ▶More ● For a bilingual broadcast: A for channel 1◀ ▶B for channel 2 ● For a stereo broadcast: Stereo◀ ▶Mono ● PIP i When PIP is switched on, you can additionally select the PIP sound for the headphones





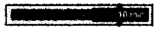
Using the Features Menu

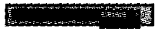


1 Press MENU. Select the symbol ✱ using ▼. Push to ▶.
2 Select the desired menu item using ▼. Push to ▶ to enter.
3 Select the desired setting using ▲ or ▼.
4 Store by pressing OK.
5 Press MENU to return to the normal TV screen.

Features

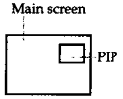
Item	Effect/Operation
PIP Position	i See next page for details
Sleep Timer	i You can select a time period after which the TV switches itself into standby mode ▲ Off 10 min. 20 min. ⋮ ▼ 90 min.
Parental Lock	▼ Off: Normal mode ▲ On: TV can only be switched on out of standby-mode using the Remote Commander, the buttons on the TV do not work.
AV2 Source	i You can select the source to be output from the Scart connector ⊖2/⊕2. In this way you can record from this socket while watching another source. ▲ TV audio/video signal from the aerial T AV1 audio/video signal from Scart 1 AV2 audio/video signal from Scart 2 ▼ AV3 audio/video signal from front or rear connectors





Using Picture-in-Picture

i Picture-in-Picture (PIP) lets you display a second, small screen within the main TV picture. In this way you can watch the video output from any connected equipment, e.g., from a VCR, while watching TV.



Switching PIP on and off

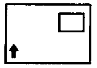
- Press ◰/◨ ⑥.

↳ The small screen is displayed.

i The source of the small screen is the one last used when the TV was on.

- Press ◰/◨ ⑥ again to switch PIP off.

Selecting a PIP source

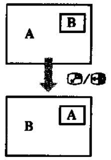


1 Press ⬆ ●.
↳ The symbol ⬆ is displayed in the bottom left-hand corner of the screen.
2 Press ⊕ ● repeatedly until the desired source appears.

i You can select between TV, AV1, AV2, AV3.

◆ If no video source (e.g. VCR or Camera) is connected, the PIP will be noisy.
◆ You cannot display an RGB source in the PIP.

Swapping the screens



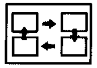
- Press ◰/◨ ●.

↳ The two screens are swapped.

Changing channels if the TV picture is in the PIP

- First press ⬆, then the respective number buttons.

Changing the PIP position



i There are four different positions of the small screen within the main screen. Select the PIP position in the Features menu.

1 Press MENU. Select the symbol ✱ using ▼. Push to ▶ to enter.
2 Select PIP position by pushing to ▶.
3 Select the desired position using ▼ or ▲. Press OK to select.
4 Press MENU to return to the normal TV screen.

Teletext

Most TV channels broadcast information via teletext. The index page of the teletext service (usually page 100) gives you information on how to use their service.

Make sure to use a TV channel with a strong signal otherwise there may be Teletext errors.

Direct Access Functions

Switching Teletext on and off

1 Select the TV channel which carries the teletext service you want to view.

2a Press ⊜ ● once to switch teletext on.
The teletext menu is displayed.
b Press ⊜ twice for Mix mode.
The TV broadcast and the Teletext display are overlapped.

3 Press ▢ ● or press ⊜ a third time to switch teletext off.

Selecting a Teletext Page

Direct Page Selection

- Input the three digits of the page number using the number buttons ●.

If you have made a mistake:
Type in any three digits, then reenter the correct page number.

Page Catching

1 Select a teletext page which has several page numbers on it (e.g., the index page).

2 Press OK ●.
Page Catching is displayed.

3 Select the desired page number using ▲ or ▼ ● and press OK.
The requested page is displayed after some seconds.

Selecting the next or the preceding page

- Press ▣ ● (Page +) or ▣ (Page -).

Selecting the index page

- Press ⊞ ●.

Selecting a subpage

A teletext page may consist out of several subpages. In this case an information line is displayed, showing the number of the subpages.

- Select the mode by pushing to ▲. Select the subpage by using ▲ or ▼.

Freezing a Teletext subpage

1 Press ⊞ ● or ⊕ ●.
The symbol ⊕ is displayed and the subpage is not updated.

2 Press ⊜ ● to resume normal teletext reception.

Using Fastext*

*depending on availability of service

Fastext lets you access pages with one button stroke. When Fastext is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons ●, ●, ●, ● on the Remote Control.

- Press the coloured button which corresponds to the colour in the colour-coded menu.

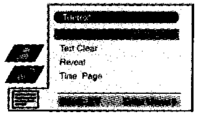
Using the Teletext Menu

This TV set has a menu-guided teletext system. When teletext is switched on you can use the joystick buttons to operate the teletext menu

Select the menu functions as follows:

1 Press MENU ●.
The Teletext menu is superimposed on the teletext display.

2 Select the teletext function using ▲ or ▼ ●. Push to ▶ to enter.



Top/Bottom/Full

For convenient reading of a Teletext page you can enlarge it.
After having selected the function, a sub menu Top ▲ Bottom ▼ Full OK is displayed.

- Push to ▲ to enlarge the upper half of the screen, push to ▼ to enlarge the lower half. Press OK to resume the normal size. Press ⊜ to resume the normal Teletext operation.

Text Clear

After having selected the function, you can watch a TV channel while waiting for a requested Teletext page. As soon as the page is available, the symbol ⊜ changes colour.

- Press ⊜ to view the page.

Reveal

Some teletext pages contain hidden information (e.g., for a quiz), which you can reveal.
After having selected the function, the hidden information appears.

- Press ⊜ to resume the normal Teletext operation.

Time Page*

*depending on availability of service

You can call up a time-coded page - such as an alarm page - at a time specified by you.
After having selected the function a sub menu is displayed.

1 Select On using ▲ or ▼. Push to ▶ to enter.

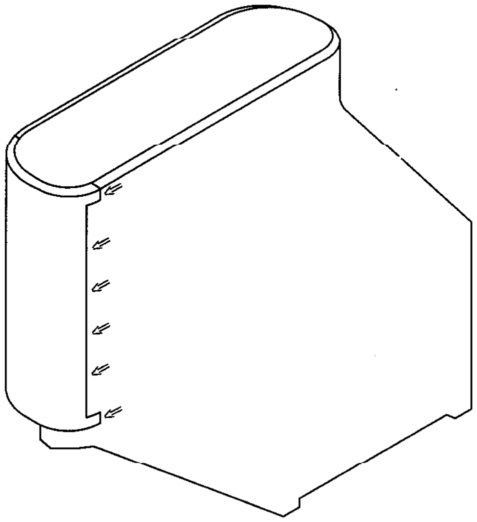
2 Enter the three digits of the desired page using the number buttons ●.

3 Enter the four digits of the desired time using the number buttons ●.

4 Press OK to store.
The time is displayed in the top left-handed corner of the screen.
At the requested time the page is displayed.

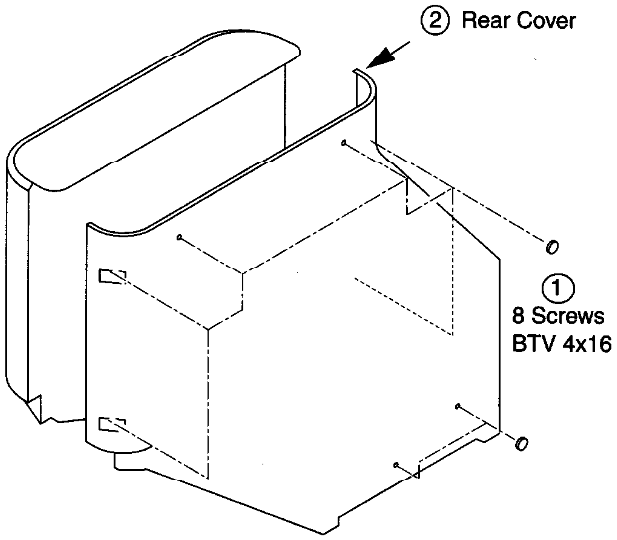
SECTION 2
DISASSEMBLY

2-1. SPEAKER GRILLE REMOVAL



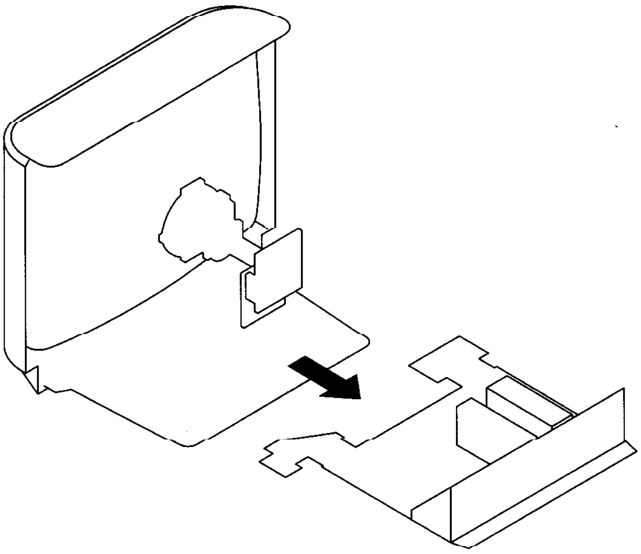
Remove the speaker grille by pressing the buttons marked ⇐ .While pressing the top button press the remaining five buttons in turn to release the grille.

2-2. REAR COVER REMOVAL

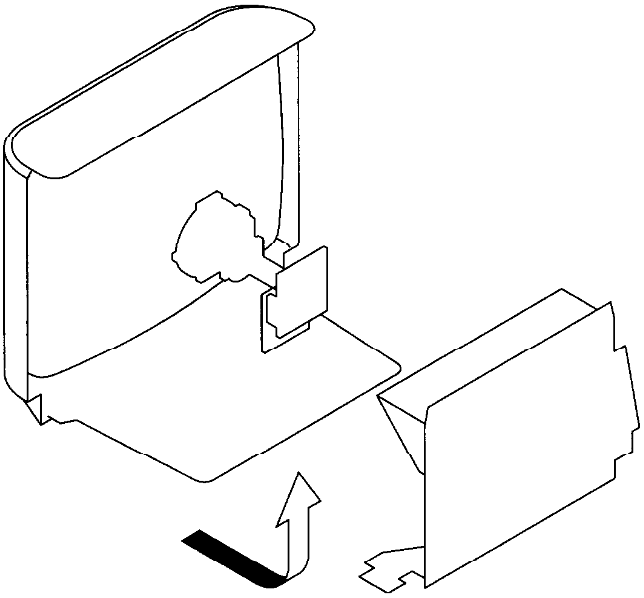


CAUTION:
Take care not to damage the C Board when removing or refitting the rear cover.

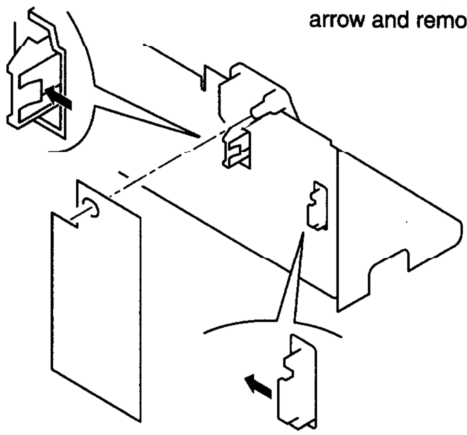
2-3. CHASSIS ASSY REMOVAL



2-4. SERVICE POSITION



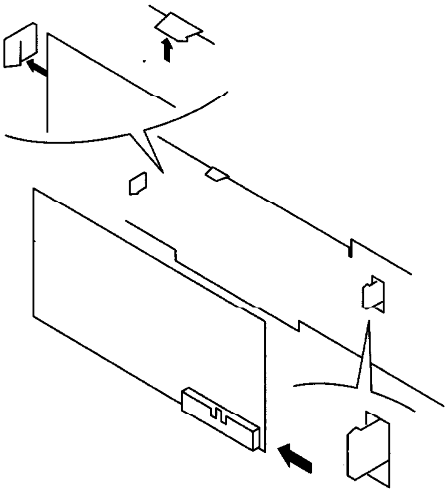
2-5. U BOARD REMOVAL



① Push the claw in the direction of the arrow and remove.

② Pull the Board in the direction of the arrow and remove.

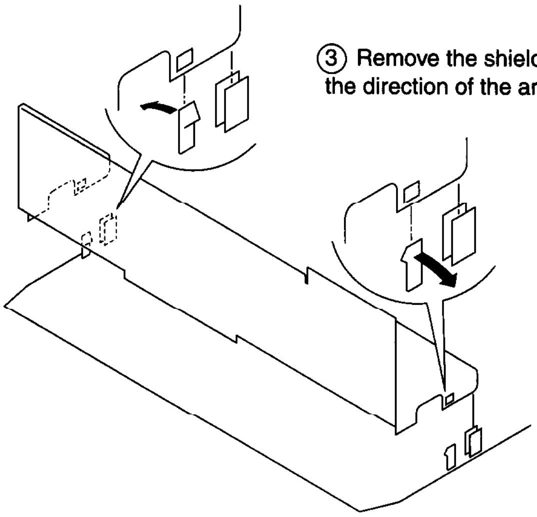
2-6. J BOARD REMOVAL



① Push the claw in the direction of the arrow and remove.

② Pull the Board in the direction of the arrow and remove.

2-7. J SHIELD REMOVAL

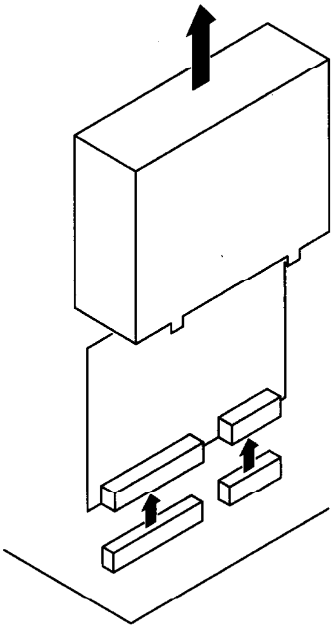


① Push the claw in the direction of the arrow and remove.

③ Remove the shield in the direction of the arrow.

② Push the claw in the direction of the arrow and remove.

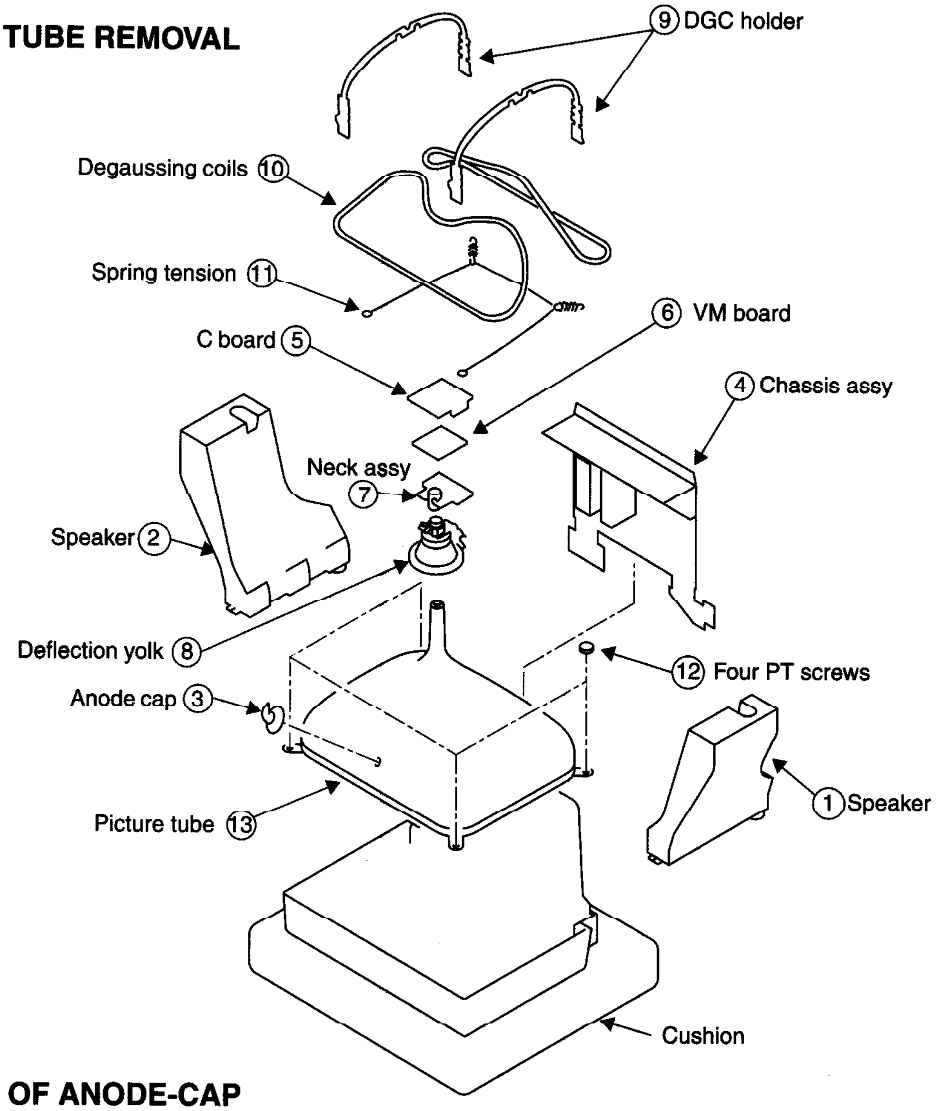
2-8. B2 BOARD REMOVAL



NOTE

All other boards are removed in a similar manner to those shown

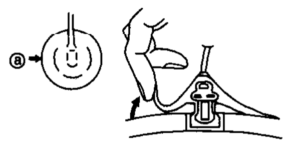
2-9. PICTURE TUBE REMOVAL


⑨ DGC holder
Degaussing coils ⑩
Spring tension ⑪
C board ⑤
⑥ VM board
④ Chassis assy
Neck assy
⑦
Speaker ②
Deflection yolk ⑧
⑫ Four PT screws
Anode cap ③
① Speaker
Picture tube ⑬
Cushion

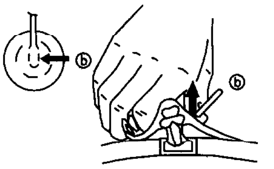
• REMOVAL OF ANODE-CAP

Note : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

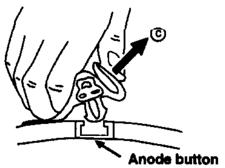
* **REMOVING PROCEDURES.**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ



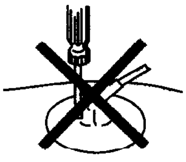
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ

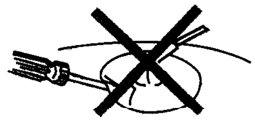

ⓒ
Anode button

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

• HOW TO HANDLE THE ANODE-CAP

① To prevent damaging the surface of the anode-cap do not use sharp materials.
② Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
③ A metal fitting called a shatter hook terminal is fitted inside the rubber cap. Do not turn the rubber foot over excessively this may cause damage if the shatter hook sticks out.



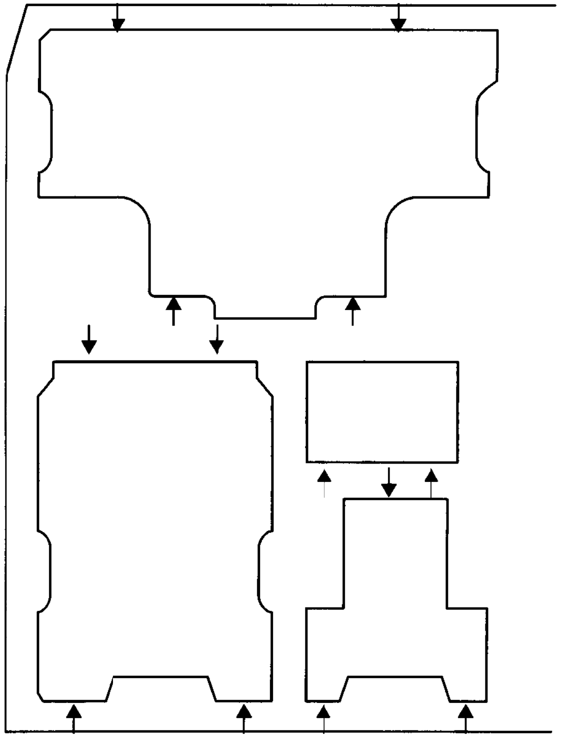


REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

(1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed wiring board, the bottom plates fitted to the main chassis bracket require to be removed.
This is performed by cutting the gates with a sharp wire cutter at the locations indicated by arrows.

Note : There are 4 plates fitted to the main bracket and secured by 4 gates.
Only remove the necessary plate to gain access to the printed wiring board.

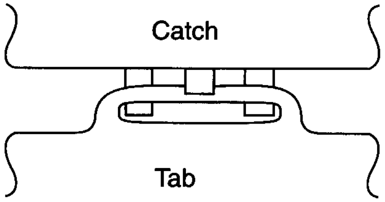


⚠ **For safety reasons, on no account should the plates be removed and not refitted after servicing.**

(2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.

Please note that the plates need to be rotated 180 degrees from the cut position to allow the tabs to be fitted in the catch positions.



SECTION 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings:

Contrast	.... normal
Brightness	.... normal

Carry out the following adjustments in this order:

3-1. Beam Landing
3-2. Convergence
3-3. Focus
3-4. White balance

Note: Test equipment required

1. Color bar/pattern generator.
2. Degausser.
3. Digital multimeter.
4. Oscilloscope.

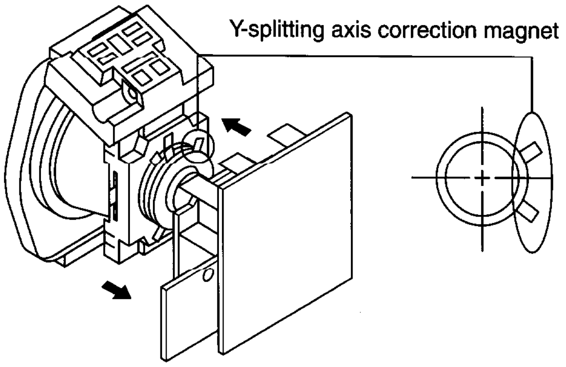
3-1. BEAM LANDING

Preparation:

1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the set's power and degauss with the degausser.

(1) Adjustment of Correction Magnet for Y-Splitting Axis

1. Input a crosshatch signal from the pattern generator.
2. Set the Picture control to minimum and confirm that the Brightness control is set to normal.
3. Position the neck assembly as indicated in Fig.3-2.
4. Move the deflection yolk as far forward as is possible.
5. Adjust the upper and lower pin symmetrically by opening or closing the Y-splitting axis correction magnets located on the neck assembly.
6. Return the deflection yolk to its original position.



Caution :

High voltages are present on the Deflection yolk terminals - take care when handling the Deflection yolk whilst carrying out adjustments.

(2) Landing

Note : Before carrying out the following adjustments adjust the magnets as indicated below [See Fig.3-3].

1. Input an all-white signal from the pattern generator. Maximize the picture setting and adjust the Brightness setting.
2. Rough-adjust the focus and horizontal convergence.
3. Loosen the deflection yolk screws and align the purity adjustment knob to its central position. [See Fig.3-1].
4. Switch from the all-white pattern to an all-green pattern.
5. Move the deflection yolk backwards and adjust with the purity magnet so that the green is at the centre and it aligns symmetrically. [See Fig.3-4].
6. Move the deflection yolk forward and adjust so that the entire screen becomes green.
7. Switch the raster signal to red, then to blue and verify the landing condition.
8. When the position of the deflection yolk has been determined, fasten the deflection yolk with the screw.
9. If the beam does not land correctly in all the corners of the screen, use magnets to correct it. [See Fig.3-5].

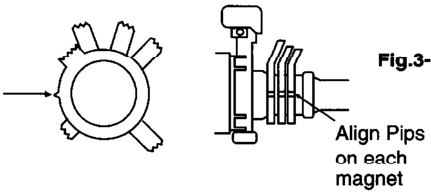


Fig.3-3

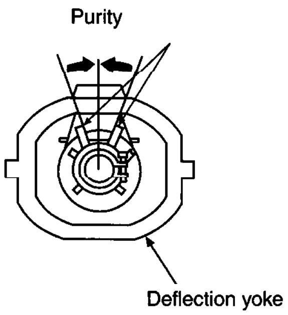
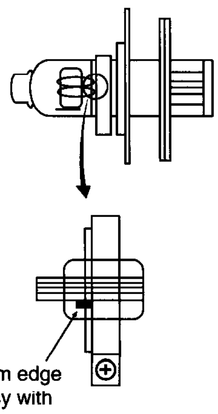


Fig.3-1

Neck assy



Align the bottom edge of the neck assy with the G3 hole centre.

Fig.3-2

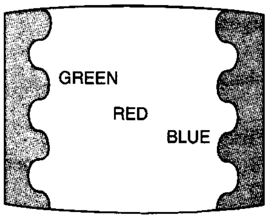

GREEN
RED
BLUE

Fig.3-4

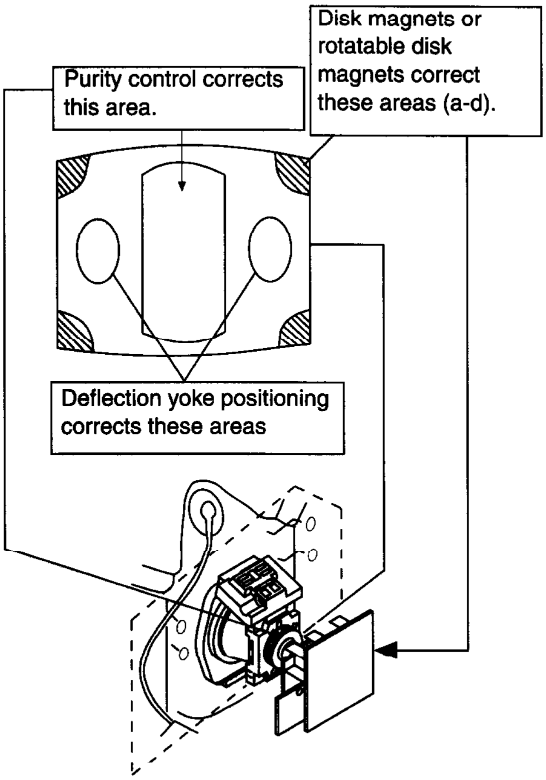
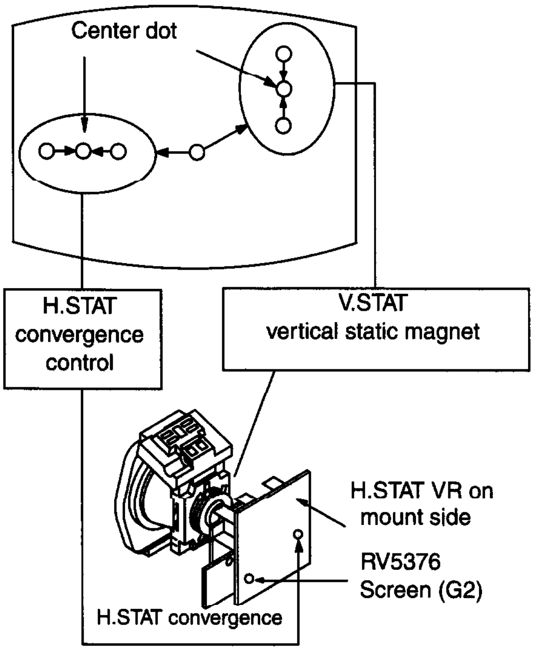

Disk magnets or rotatable disk magnets correct these areas (a-d).
Purity control corrects this area.
Deflection yoke positioning corrects these areas

Fig. 3-5

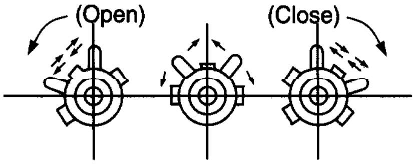
3-2. CONVERGENCE

(1) Screen centre convergence [Static convergence]

1. Input a dot signal from the pattern generator. Normalize the picture setting.
2. [Moving horizontally], adjust the H.STAT control so that the horizontal red, green and blue dots coincide at the centre of the screen.
3. [Moving vertically], adjust the V.STAT magnet so that the vertical red, green and blue dots coincide at the centre of the screen.

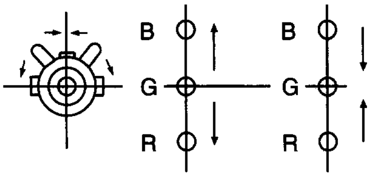

Center dot
H.STAT convergence control
V.STAT vertical static magnet
H.STAT VR on mount side
RV5376 Screen (G2)
H.STAT convergence

- If the horizontal dots are unable to coincide with the variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking. [Adjust the convergence by tilting the V.STAT convergence or by opening and closing the V.STAT convergence.]

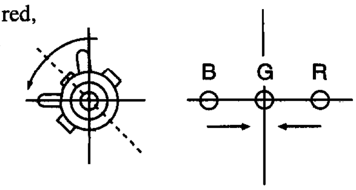


4. Movement of the red, green and blue dots by tilting the V.STAT magnet and by opening or closing the V.STAT magnet.

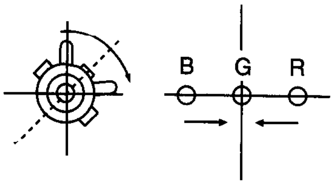
a). By opening or closing the V.STAT magnet, the red, green and blue dots move as indicated below.



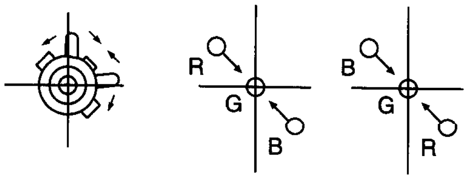
b). By rotating the V.STAT magnet counter clockwise, the red, green and blue dots move as indicated below.



c). By rotating the V.STAT magnet clockwise, the red, green and blue dots move in the direction indicated below.



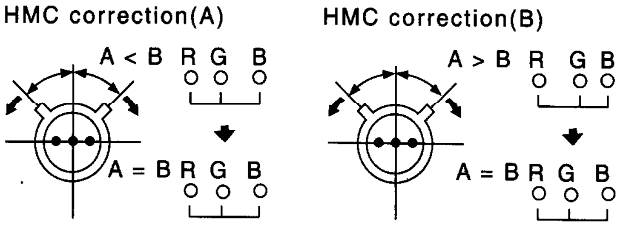
d). By opening or closing the V.STAT magnet, the red, green and blue dots move in the direction indicated below.



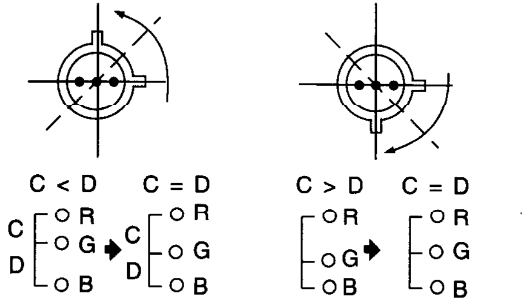
Note : If the blue dot does not coincide with the red and green points correct the points by using the BMC [Hexapole] magnet.

5. Correction for HMC [horizontal mis-convergence] and VMC [vertical mis-convergence] by using the BMC [Hexapole] magnet.

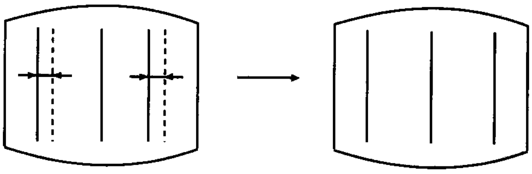
a). HMC correction by BMC [Hexapole] magnet and movement of the electron beam.


HMC correction(A)
A < B R G B
A = B R G B
HMC correction(B)
A > B R G B
A = B R G B

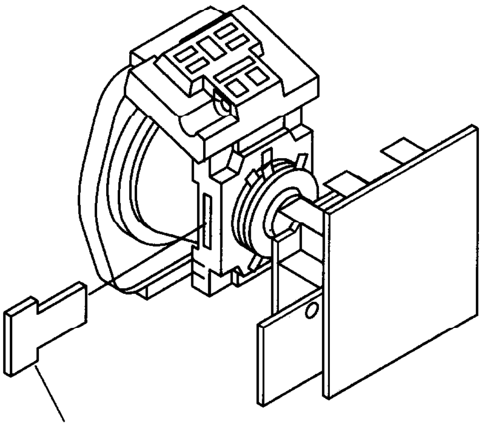
b). VMC correction by BMC [Hexapole] magnet and movement of the electron beam.


VMC correction(A)
C < D
C = D
C
D
R
G
B
VMC correction(B)
C > D
C = D
R
G
B

HAMP

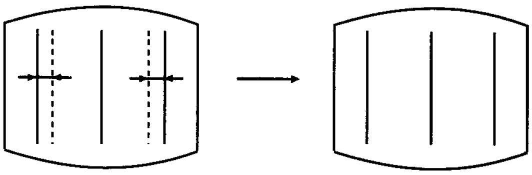


7. HTIL correction can be performed by adding a THL correction ASSY to the DY.



TLH correction Assy
4-057-714-01

HTIL



Layout of each control

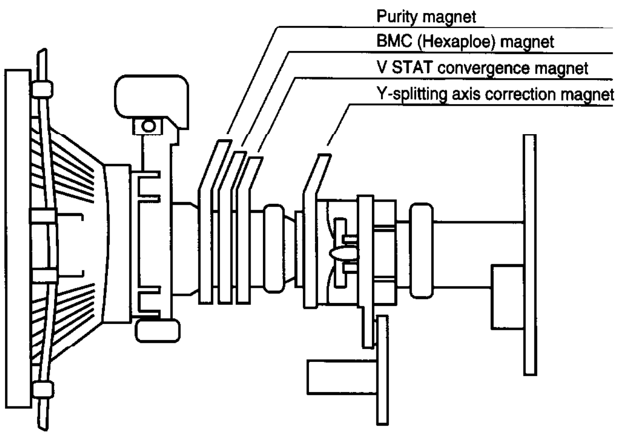
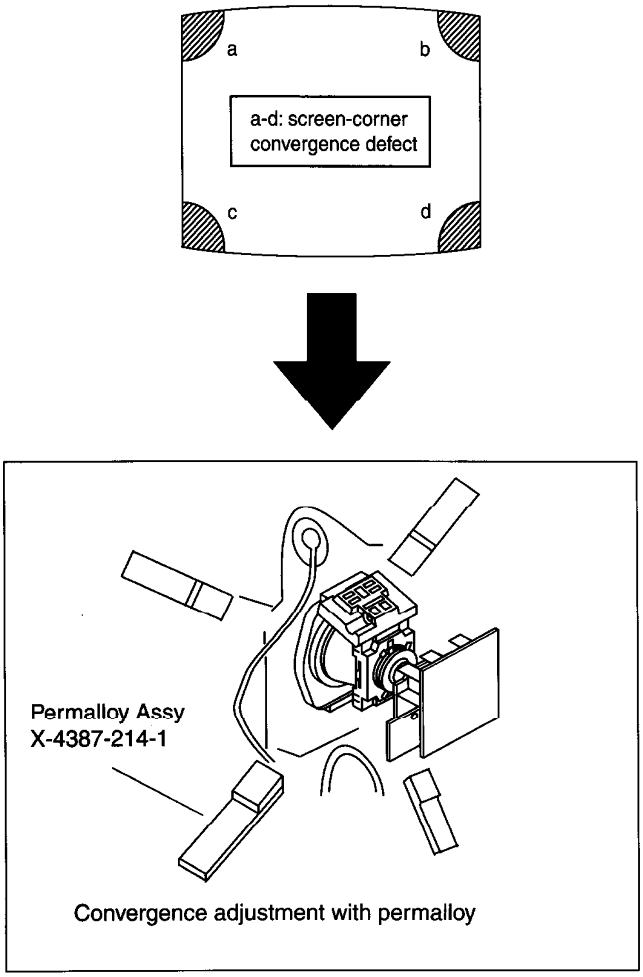

Purity magnet
BMC (Hexaploe) magnet
V STAT convergence magnet
Y-splitting axis correction magnet

Fig 3-5

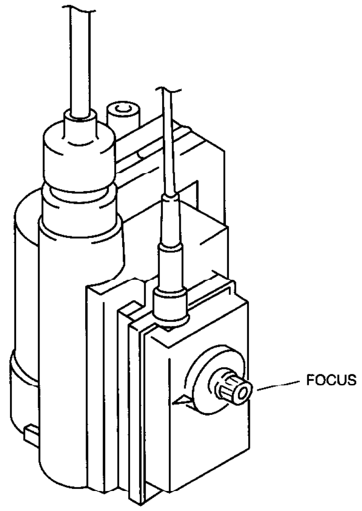
Note : If you are unable to adjust the corner convergence properly, this can be corrected with the use of permalloys.


a
b
a-d: screen-corner convergence defect
c
d
Permalloy Assy
X-4387-214-1

Convergence adjustment with permalloy

3-3. FOCUS

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control located on the flyback transformer to obtain the best focus at the centre of the screen.
   Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



3-4. SCREEN (G2), WHITE BALANCE

[Adjustment in the service mode using the remote commander]

G2 adjustment (RV5376)

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 175V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control RV5376 [SCREEN] located on the C Board to the point just before the flyback return lines disappear.

White balance adjustment for TV mode

1. Input an all-white signal.
2. Enter into the Service Mode by pressing 'TEST', 'TEST' and 'MENU' 'MENU'on the Service Commander.
3. Select 'Backend' from the on screen menu display and press 'OK'.
4. The 'Backend' menu will appear on the screen.
5. Set the contrast to MAX.
6. Set the 'R DRIVE' to 41.
7. Adjust the 'G DRIVE' and 'B DRIVE' so that the white balance becomes optimum.
8. Press the 'OK' button to write the data for each item.
9. Set the contrast to MIN.
10. Set the 'R CUT-OFF' to 31.
11. Adjust the 'G CUT-OFF', and 'B CUT-OFF' with the left and right buttons on the remote commander so that the white balance becomes optimum.
12. Press the 'OK' button to write the data for each item.

Backend

No	Descr.	Def	Min	Max	Data
1	R-on	ON	OFF	ON	ON
2	G-on	ON	OFF	ON	ON
3	B-on	ON	OFF	ON	ON
4	D-col	OFF	OFF	ON	ON
5	Color-axis	2	0	3	2
6	Contrast	63	0	63	63
7	Limit-Luv	3	0	3	3
8	Hue	31	0	63	31
9	Colour	31	0	63	28
10	CTI -Level	2	0	3	2
11	Brightness	31	0	63	31
12	Gamma	2	0	3	2
13	Sharpness	31	0	63	44
14	LTI-Level	0	0	3	0
15	R-Drive	41	0	63	40
16	BLK-Bottom	0	0	3	0
17	G-Drive	41	0	63	38
18	ABL-TH	0	0	3	0
19	B-Drive	41	0	63	21
20	ABL-Mode	2	0	3	2
21	Sub Bright	31	0	63	32
22	VM-Level	2	0	3	2
23	R-Cutoff	31	0	63	41
24	Proover	2	0	3	2
25	G-Cutoff	31	0	63	45
26	DPIC-Level	2	0	3	2
27	B-Cutoff	31	0	63	48
28	DC-Tran	1	0	3	1
29	Sub-Cont	7	0	15	7
30	LRGB2-Lvl	12	0	15	12
31	P-Abl	15	0	15	15
32	DL-Pass	OFF	OFF	ON	OFF
33	Sharp.Fo	ON	OFF	ON	ON
34	Aging-W	OFF	OFF	ON	OFF
35	Aging-B	OFF	OFF	ON	OFF
36	CB-offset1	7	0	15	7
37	CR-offset1	7	0	15	7
38	CB-offset2	7	0	15	7
39	CR-offset2	7	0	15	7
40	Sub Colour	0	-8	8	-1

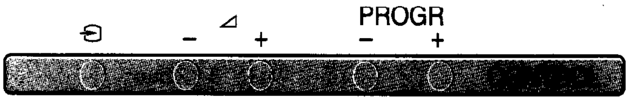
SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

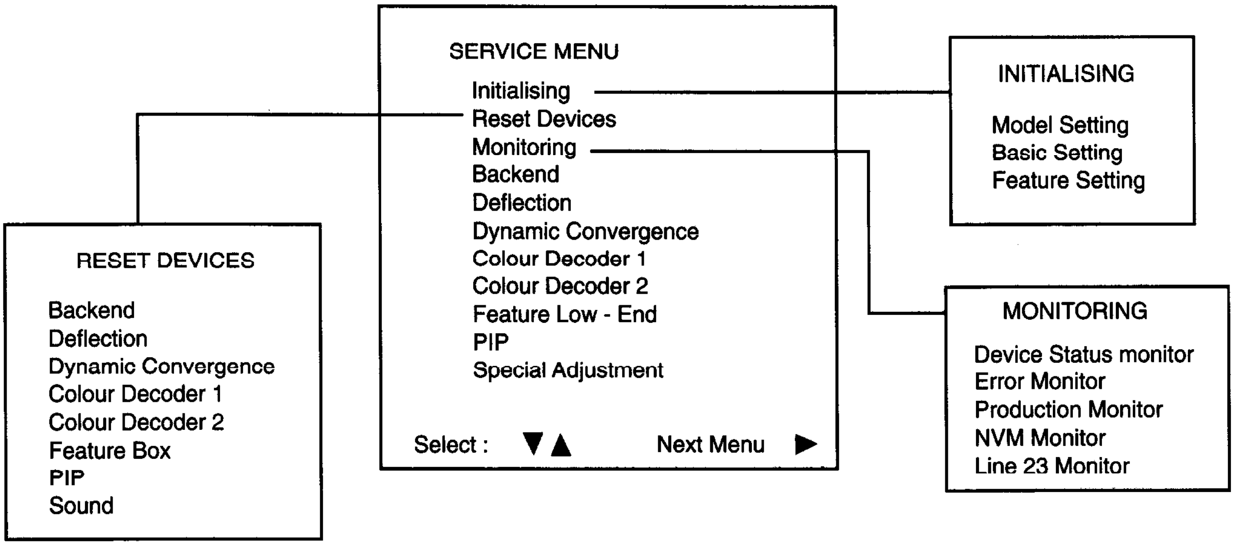
Service adjustments to this model can be performed using the supplied Remote Commander RM-891.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing PROG + (plus) and PROG - (minus) buttons on the top panel.



2. "TT" will appear in the upper right corner of the screen.
3. Press the 'MENU' button twice on the remote commander to obtain the service menu on the screen.


SERVICE MENU
Initialising
Reset Devices
Monitoring
Backend
Deflection
Dynamic Convergence
Colour Decoder 1
Colour Decoder 2
Feature Low - End
PIP
Special Adjustment
Select : ▼▲
Next Menu ▶
INITIALISING
Model Setting
Basic Setting
Feature Setting
RESET DEVICES
Backend
Deflection
Dynamic Convergence
Colour Decoder 1
Colour Decoder 2
Feature Box
PIP
Sound
MONITORING
Device Status monitor
Error Monitor
Production Monitor
NVM Monitor
Line 23 Monitor

4. Push the joystick up or down on the remote commander to select the adjustment item.
5. Push the right button to proceed to the next menu.
6. If the required adjustment item is 'Deflection', push the down button to move to 'Deflection'.
7. Push the joystick to the right to enter into 'Deflection'.
8. Change the data in order to comply with each standard.

NOTE:
- Before performing any adjustments assure that the correct model has been selected in the Model Setting menu.
- After carrying out the service adjustments, to prevent the customer accessing the Service Menu switch the TV set OFF and then ON.

Model Setting

1	KV-29FX60A/D/E
2	KV-29FX60B
3	KV-29FX60U
4	KV-29FC60A/D/E
5	KV-29FC60B
6	KV-29FC60K
7	KV-29FC60R
8	KV-29FS60A/D/E
9	KV-29FS60B
10	KV-29FS60K
11	KV-29FS60R
12	KV-28/32FX60A/D/E
13	KV-28/32FX60B
14	KV-28/32FX60K
15	KV-28/32FX60R
16	KV-28/32FX60U
17	KV-29FS60A/D/E
18	KV-29FS60B

Fig.4-1

Basic setting

No	Descr.	Min	Max	Data
1	Sys.B/G	OFF	ON	ON
2	Sys.D/K	OFF	ON	ON
3	Sys.L	OFF	ON	ON
4	Sys I (UK)	OFF	ON	OFF
5	Sys I (IRL)	OFF	ON	OFF
6	Russian sound	OFF	ON	OFF
7	TXT Nod.option	1	4	3
8	simple PAT	OFF	ON	OFF
9	16:9 CRT	OFF	ON	OFF
10	Sub-woofer	OFF	ON	ON
11	Auto stand-by	OFF	ON	ON
12	comb-filter	OFF	ON	OFF
13	Auto YC det	OFF	ON	ON
14	Auto comb det	OFF	ON	OFF
15	AV2 Available	OFF	ON	ON
16	AV3 Available	OFF	ON	ON
17	AV4 Available	OFF	ON	OFF
18	AV3 Front & rear	OFF	ON	ON
19	SECAM Tape	OFF	ON	OFF

Fig.4-2

NOTE:
The above table is dependant on model, destination & size.

Backend

No	Descr.	Def	Min	Max	Data
1	R-on	ON	OFF	ON	ON
2	G-on	ON	OFF	ON	ON
3	B-on	ON	OFF	ON	ON
4	D-col	OFF	OFF	ON	ON
5	Color-axis	2	0	3	2
6	Contrast	63	0	63	63
7	Limit-Luv	3	0	3	3
8	Hue	31	0	63	31
9	Colour	31	0	63	28
10	CTI -Level	2	0	3	2
11	Brightness	31	0	63	31
12	Gamma	2	0	3	2
13	Sharpness	31	0	63	44
14	LTI-Level	0	0	3	0
15	R-Drive	41	0	63	40
16	BLK-Bottom	0	0	3	0
17	G-Drive	41	0	63	38
18	ABL-TH	0	0	3	0
19	B-Drive	41	0	63	21
20	ABL-Mode	2	0	3	2
21	Sub Bright	31	0	63	32
22	VM-Level	2	0	3	2
23	R-Cutoff	31	0	63	41
24	Preover	2	0	3	2
25	G-Cutoff	31	0	63	45
26	DPIC-Level	2	0	3	2
27	B-Cutoff	31	0	63	48
28	DC-Tran	1	0	3	1
29	Sub-Cont	7	0	15	7
30	LRGB2-Lvl	12	0	15	12
31	P-Abl	15	0	15	15
32	DL-Pass	OFF	OFF	ON	OFF
33	Sharp.Fo	ON	OFF	ON	ON
34	Aging-W	OFF	OFF	ON	OFF
35	Aging-B	OFF	OFF	ON	OFF
36	CB-offset1	7	0	15	7
37	CR-offset1	7	0	15	7
38	CB-offset2	7	0	15	7
39	CR-offset2	7	0	15	7
40	Sub Colour	0	-8	8	-1

Fig.4-3

Feature setting

No	Descr.	Min	Max	Data
1	PIP	OFF	ON	ON

Fig.4-4

Colour Decoder 1

No	Descr.	Def	Min	Max	Data
1	DelayLinMd	OFF	OFF	ON	OFF
2	Gain set	1	0	3	1
3	Y-Delay	7	0	15	7
4	Phase Time	0	0	3	0
5	Vid Ident Md	OFF	OFF	ON	OFF
6	Sync Mode	OFF	OFF	ON	OFF
7	Vid Ident Sw	ON	OFF	ON	ON
8	H-Output	OFF	OFF	ON	OFF
9	Enagating	OFF	OFF	ON	OFF
10	IF Circuit	ON	OFF	ON	ON
11	GP Delay	OFF	OFF	ON	OFF

Fig.4-5

Colour Decoder 2

No	Descr.	Def	Min	Max	Data
1	DelayLinMd	OFF	OFF	ON	OFF
2	Gain set	1	0	3	1
3	Y-Delay	7	0	15	7
4	Phase Time	0	0	3	0
5	Vid Ident Md	OFF	OFF	ON	OFF
6	Sync Mode	OFF	OFF	ON	OFF
7	Vid Ident Sw	ON	OFF	ON	ON
8	H-Output	OFF	OFF	ON	OFF
9	Enagating	OFF	OFF	ON	OFF
10	IF Circuit	ON	OFF	ON	ON
11	GP Delay	OFF	OFF	ON	OFF

Fig.4-6

Deflection

No	Descr.	Def	Min	Max	Data
1	V-Size	31	0	63	34
2	V-Position	31	0	63	21
3	V-Comp	1	0	3	1
4	V-Linear	7	0	15	7
5	S-Corr	7	0	15	8
6	H-Size	31	0	63	29
7	EW-DC	OFF	OFF	ON	OFF
8	Pin-Amp	31	0	63	36
9	Up-Cpin	31	0	63	35
10	M-Pin	2	0	3	2
11	Lo-Cpin	31	0	63	37
12	Trapezium	7	0	15	7
13	H-Position	31	0	63	25
14	AFC-Bow	7	0	15	7
15	AFC-Angle	7	0	15	9
16	Up-Vlin	0	0	15	0
17	Lo-Vlin	0	0	15	0

Fig.4-7

Dynamic Convergence

No	Descr.	Def	Min	Max	Data
1	Range	63	0	63	32
2	H Stat	33	0	63	33
3	H amp L	37	0	63	37
4	H amp R	36	0	63	36
5	Up Y	31	0	63	31
6	Low Y	33	0	63	33
7	Y Up L	30	0	63	30
8	Y Up R	30	0	63	30
9	Y Low L	31	0	63	31
10	Y Low R	30	0	63	30
11	Mbow Up L	31	0	63	31
12	Mbow Up R	32	0	63	32
13	Mbow Low L	32	0	63	32
14	Mbow Low R	32	0	63	32
15	V Stat	32	0	63	32
16	Linearity	128	0	255	104
17	H Centre	32	0	63	32
18	H Trap	32	0	63	32
19	Rotation	0	0	255	0
20	Focus Phase	128	0	255	128

Fig.4-8

Feature Low-End

No	Descr.	Def	Min	Max	Data
1	F.S.F.M	OFF	OFF	ON	OFF
2	G-Mode	OFF	OFF	ON	OFF
3	Picture Pos	0	0	3	0
4	Comp Mode	OFF	OFF	ON	OFF
5	CompSW	OFF	OFF	ON	OFF
6	Acqu.freq	OFF	OFF	ON	OFF
7	Still Pic	OFF	OFF	ON	OFF
8	Init	OFF	OFF	ON	OFF
9	Dis Feature	ON	OFF	ON	ON
10	Dis Vlimit	ON	OFF	ON	ON
11	Scr Fade	0	0	3	0
12	Hwe Delay	20	0	255	20
13	Auto Vshift	OFF	OFF	ON	OFF
14	Vwe Delay	0	0	127	0
15	SFR sw	OFF	OFF	ON	OFF
16	IPQ	0	0	3	0
17	D.Col Dec	OFF	OFF	ON	OFF
18	Blankfield	0	0	15	0
19	P1.5	OFF	OFF	ON	OFF
20	P1.4	OFF	OFF	ON	OFF
21	P1.3	OFF	OFF	ON	OFF
22	P1.2	OFF	OFF	ON	OFF
23	P1.1	OFF	OFF	ON	OFF
24	Set Vdba	OFF	OFF	ON	OFF
25	Set Sidep	ON	OFF	ON	ON
26	Set Hwe	OFF	OFF	ON	OFF
27	Set Clv	OFF	OFF	ON	OFF
28	Set Hddel	OFF	OFF	ON	OFFF
29	Set Hblnd	OFF	OFF	ON	OFF
30	Set Hre	ON	OFF	ON	ON
31	Set Hbda	ON	OFF	ON	ON
32	Set Hdav	ON	OFF	ON	ON
33	Vbdasta	0	0	255	0
34	Vsdasto	0	0	255	0
35	Msbhwesto	OFF	OFF	ON	OFF
36	Msbhwesta	OFF	OFF	ON	OFF
37	Msbvbdasto	OFF	OFF	ON	OFF
38	Msbvbdasta	OFF	OFF	ON	OFF
39	Hdavsta	40	0	255	40
40	Hdavsto	255	0	255	255

Feature Low-End(Cont.)

No	Descr.	Def	Min	Max	Data
41	Hbdasta	223	0	255	223
42	Hbdasto	222	0	255	222
43	Hresta	38	0	255	38
44	Hresto	202	0	255	202
45	Hblndsta	31	0	255	31
46	Hblndsto	30	0	255	30
47	MsbHblndsta	OFF	OFF	ON	OFF
48	MsbHblndsto	OFF	OFF	ON	OFF
49	Msb Hresto	ON	OFF	ON	ON
50	Msb Hresta	OFF	OFF	ON	OFF
51	Msbhbdasta	ON	OFF	ON	ON
52	Msbhbdasto	ON	OFF	ON	ON
53	Msbhdavsto	ON	OFF	ON	ON
54	Msbhdavsta	OFF	OFF	ON	OFF
55	Hddel	0	0	15	0
56	Clvsta	0	0	255	0
57	Clvsto	9	0	255	9
58	Hwesta	44	0	255	44
59	Hwesto	208	0	255	208
60	Ex-Thres	OFF	OFF	ON	OFF
61	Wes	ON	OFF	ON	OFF
62	Demo mode	ON	OFF	ON	OFF
63	Limerick NR	0	0	4	0
64	Nthr	0	0	255	2
65	Wval	200	0	255	200
66	Agc Ych	203	0	255	203
67	Agc Uvch	209	0	255	209
68	Aal-Bypass	OFF	OFF	ON	OFF
69	Stby Fr	OFF	OFF	ON	OFF
70	Lsb Agc-Uv	OFF	OFF	ON	OFF
71	Lsb Agc-Y	OFF	OFF	ON	OFF
72	Vcl cor	0	0	3	0
73	Ucl cor	0	0	3	0
74	Uv cor mode	0	0	3	0
75	Uvcl tau	3	0	3	3
76	Uvcol Lvl	0	0	3	0
77	Fil Mem	OFF	OFF	ON	OFF
78	Overl Thr	1	0	3	1
79	Y delay f	4	0	7	4
80	Dcti pdxsel	ON	OFF	ON	ON

Fig.4-9

Feature Low-End (Cont.)					
No	Descr.	Def	Min	Max	Data
81	Dcti Thres	0	0	15	0
82	Dcti Gain	0	0	7	0
83	Dcti Super	ON	OFF	ON	ON
84	Dcti Fil	ON	OFF	ON	ON
85	Dcti Prot	ON	OFF	ON	ON
86	Dcti Sep	ON	OFF	ON	ON
87	Dcti Limit	2	0	3	2
88	Peak Beta	0	0	7	0
89	Peak Alpha	2	0	7	2
90	Peak Neg g	0	0	3	0
91	Peak Delta	0	0	3	0
92	Peak Tau	0	0	7	0
93	Peak Corth	0	0	15	0
94	Overlay V	0	0	15	0
95	Overlay U	0	0	15	0
96	Overlay Y	10	0	255	10
97	Sidep sta	240	0	255	240
98	Sidep sto	36	0	255	36
99	Y delay B	7	0	7	7
100	Invert UV	ON	OFF	ON	ON
101	Output Range	ON	OFF	ON	ON
102	Sidep Fdel	0	0	3	0

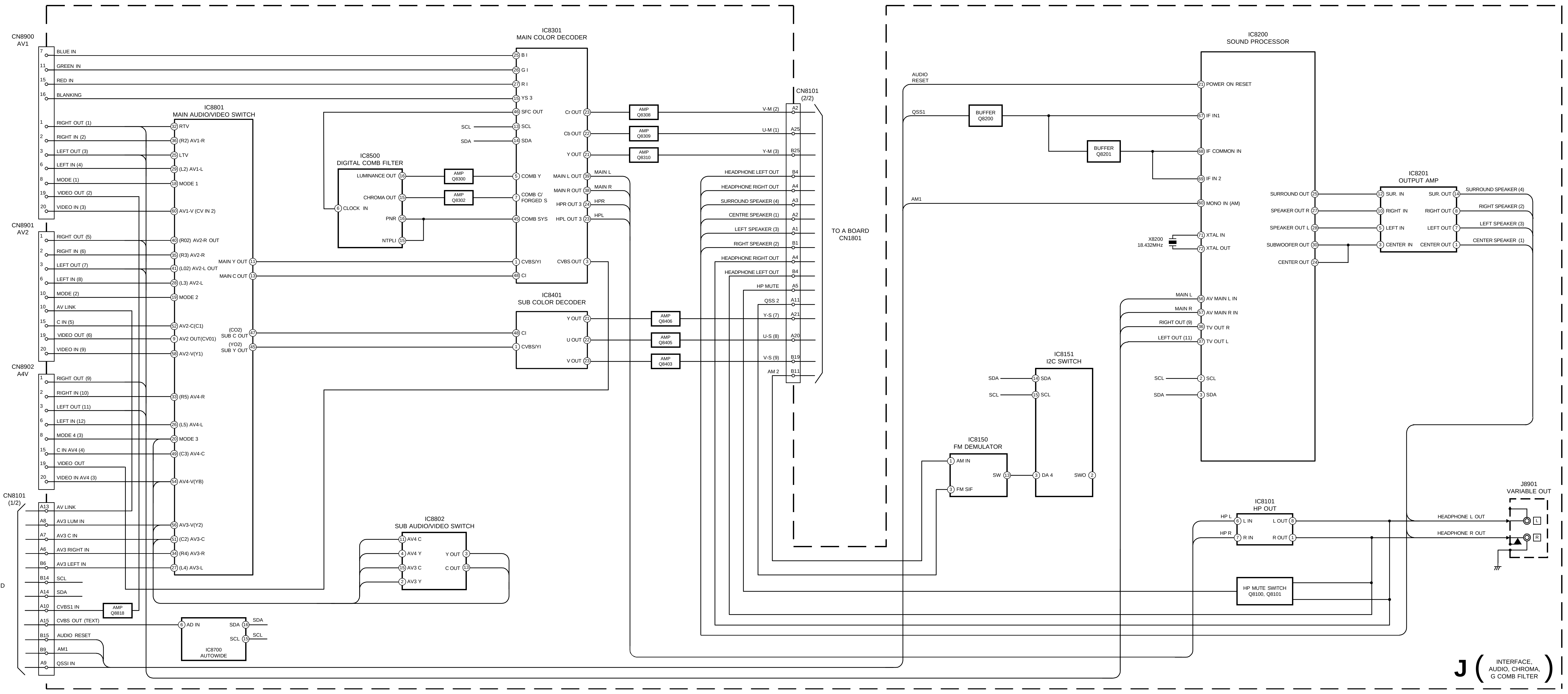
PIP					
No	Descr.	Def	Min	Max	Data
1	Freeze	OFF	OFF	ON	OFF
2	Frame	ON	OFF	ON	ON
3	Pipon	ON	OFF	ON	OFF
4	Seldel	1	0	15	1
5	Mixdis	ON	OFF	ON	ON
6	H-Poshi	0	0	3	0
7	H-Pos	137	0	255	137
8	V-Pos	59	0	255	59
9	Y-Delay	0	0	7	0
10	V-Dec	OFF	OFF	ON	OFF
11	H-Dec	OFF	OFF	ON	OFF
12	Insvh	ON	OFF	ON	ON
13	Chrins	ON	OFF	ON	ON
14	Pmod	0	0	3	0
15	Imod	0	0	3	0
16	Clisw	ON	OFF	ON	ON
17	H side	4	0	15	4
18	Vsiisq	OFF	OFF	ON	OFF
19	Vsidel	0	0	31	0
20	Parasynd	ON	OFF	ON	ON
21	Vspisq	OFF	OFF	ON	OFF
22	Vspdel	10	0	31	10
23	Con	1	0	15	1
24	Fry	8	0	15	8
25	Frv	3	0	15	3
26	Fru	4	0	15	4
27	Sel Down	OFF	OFF	ON	OFF
28	Frwidv	1	0	3	1
29	Frwidh	2	0	7	2
30	Mat	4	0	7	4
31	Daconst	OFF	OFF	ON	OFF
32	Plltc	1	0	3	1
33	Dacontle	OFF	OFF	ON	OFF
34	Left	83	0	255	83
35	RightHi	1	0	3	1
36	Right	192	0	255	192
37	Up	46	0	255	46
38	Down	189	0	255	189

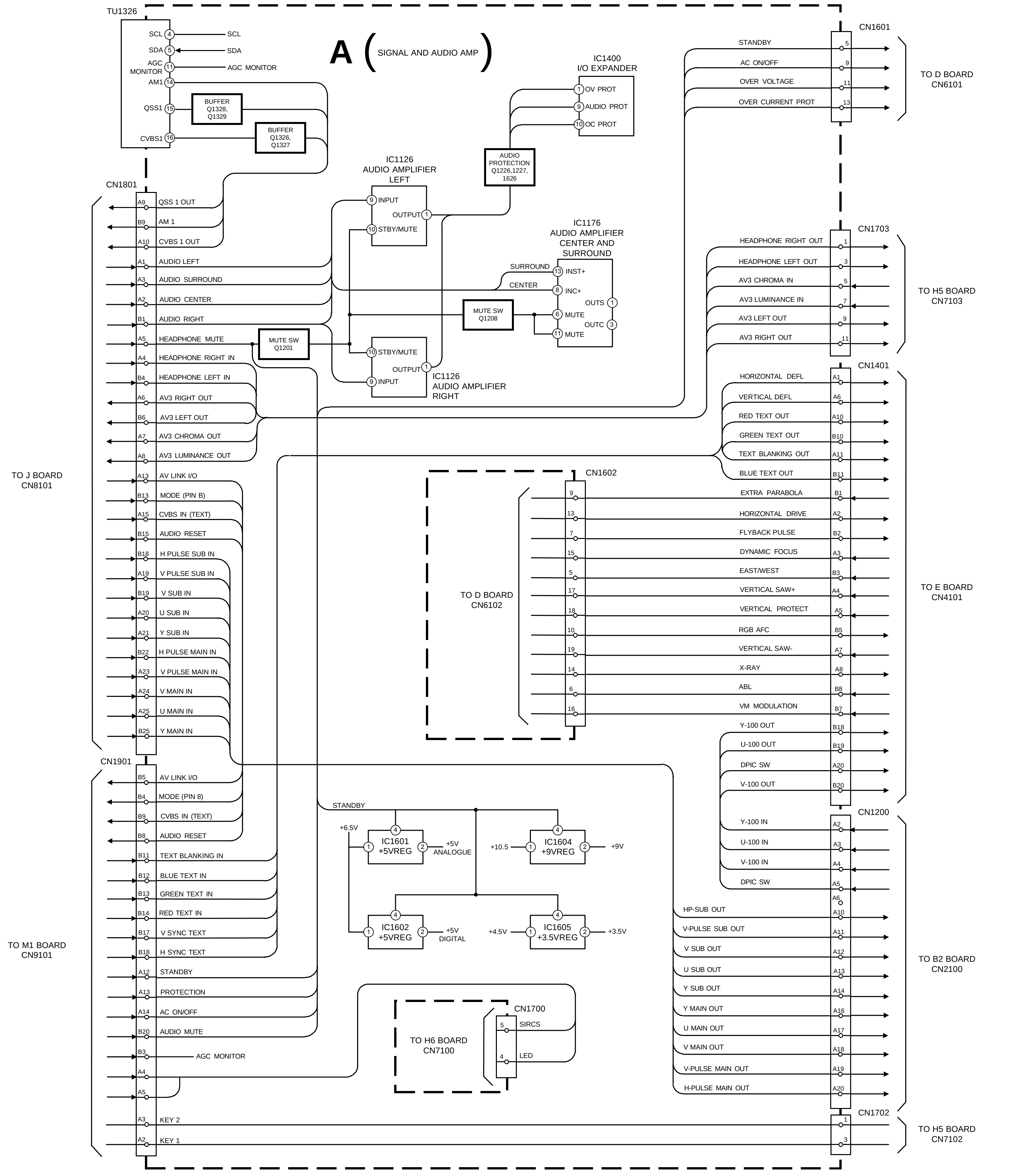
Fig.4-10

5-1. BLOCK DIAGRAMS (1)

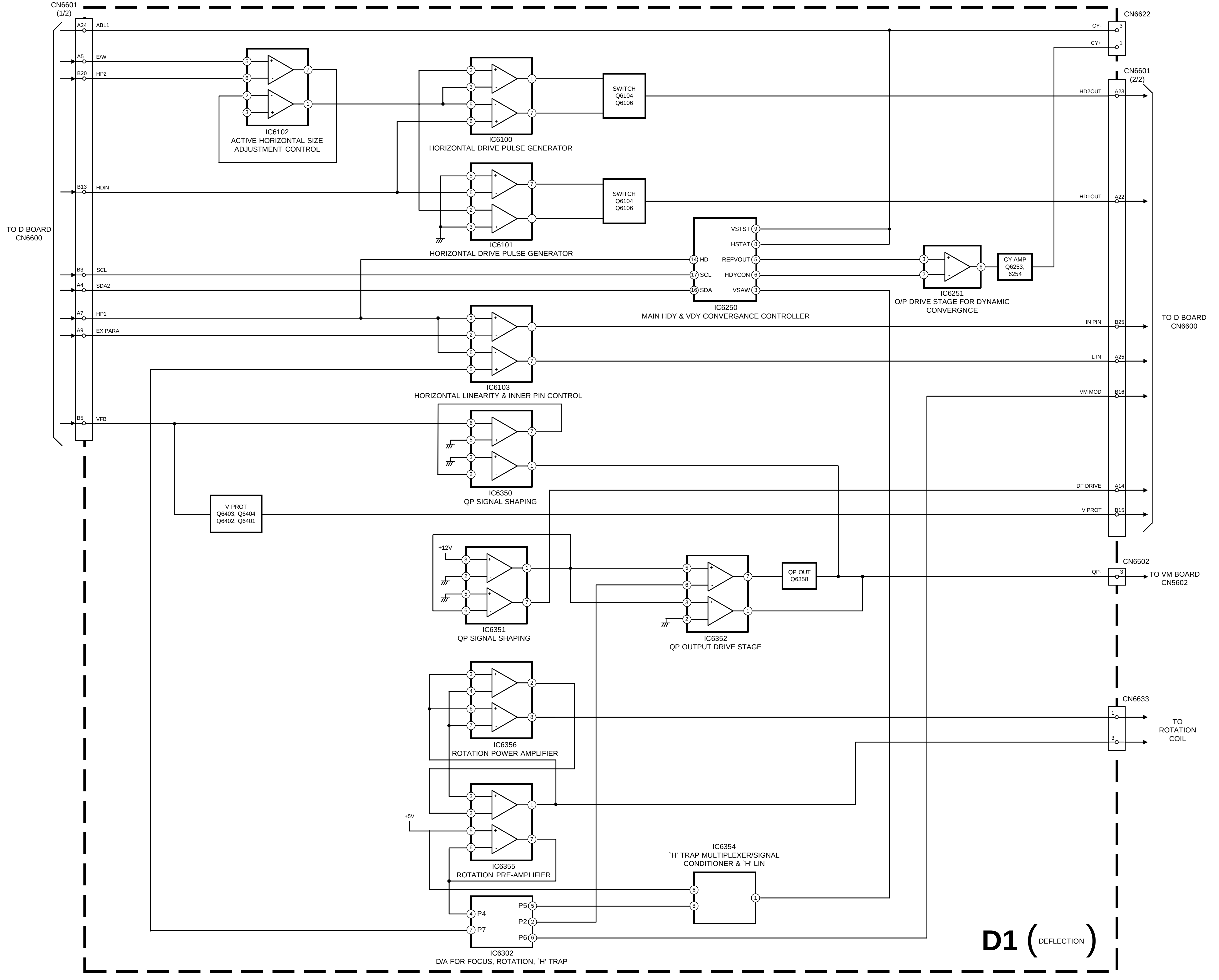
CN7611
F7626
CN7633
F1 (AC FILTER FUSE)
CN7733
S7751
POWER
CN7700
F3 (POWER SWITCH)
D (POWER SUPPLY AND DEFLECTION)
CN6700
AC IN
RELAY RY601
RELAY RY602
MAIN RECT D6604
CN6620
DGC
FOR CHECK
DGC CHECK
T6601
+4.5V RECT D6620
+6.5V RECT D6619
+10.5V RECT D6616
+135V RECT D6617
+22V RECT D6618
+4.5V
+6.5V
+10.5V
+135V
+22V
T6600 PRT
IC6604 REG OUT
IC823 POWER MODULE
T6651
IC6651
IC6667
Q6667
IC6654 +5VREG
+5V
OVER CURRENT PROT
OVER VOLTAGE PROT
AC ON/OFF
+5V STANDBY
CN6101
TO A BOARD CN1601
CN6102
TO A BOARD CN1602
CN6600
TO D1 BOARD CN6601
E/W
AFC PULSE
EX PARA
RGB AFC
HD IN
DYN FOCUS
VMOD
V PROT
V SAW +
V SAW -
HD2 OUT
HD1 OUT
H SAW
IN PIN
L IN
H CENTER
HP2
HP1
ABL
DF DRIVE
IC6700 V-OUT
V OUT Q6700
H-OUT DRIVE Q6801
H-OUT DRIVE Q6802
HDT T6801
HDT T6802
H-OUT Q6803, Q6804
IC6801
AMP Q6809 Q6810
T6805
Q6808
Q6805
Q6806
T6804 FBT
+200V RECT D6805
+200V
+135V
-15V RECT D6809
-15V
+15V RECT D6808
+15V
DFT T6852
DF DRIVE Q6851
CN6500
TO C BOARD CN5601
CN6611
DY ASSY
V DY
H DY
TO PICTURE TUBE HV
TO C BOARD FV
H6 (IR RECEIVER)
CN7100
TO A BOARD CN1700
RESP
S/RCS
+5V STBY
IC7150 RECEIVER
CN7103
HEADPHONE R IN
HEADPHONE L IN
J7925 HEADPHONE
TO A BOARD CN1703
AV3 CHROMA OUT
AV3 LUMINANCE OUT
AV3 L OUT
AV3 R OUT
Y/C
VIDEO
L
R
J7900
CN7102
TO A BOARD CN1702
KEY 2
KEY 1
S7100 S7101 S7102
H5 (HEADPHONE SVHS AND PHONO)

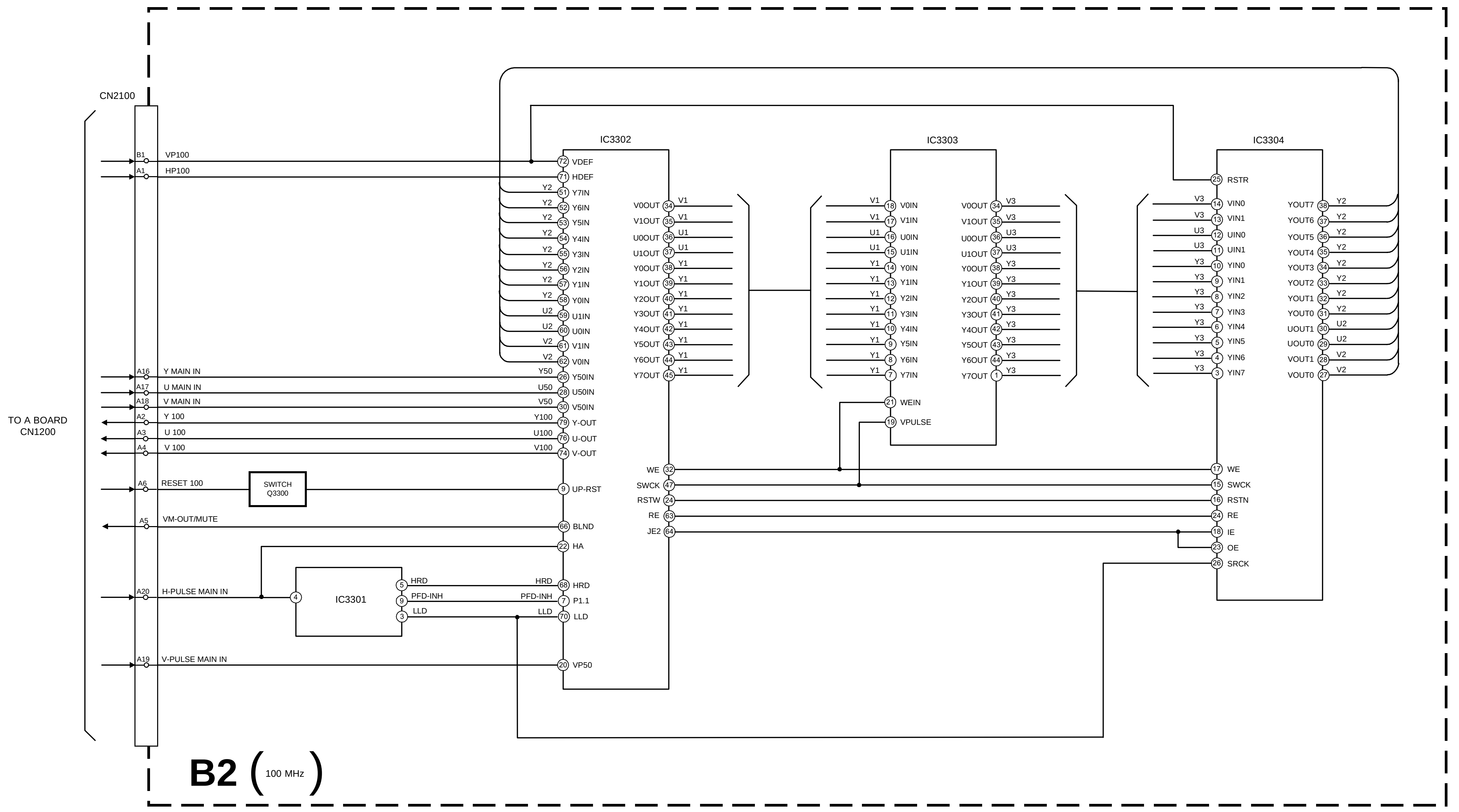
5-1. BLOCK DIAGRAMS (2)


J
INTERFACE, AUDIO, CHROMA, G COMB FILTER
CN8900 AV1
7 BLUE IN
11 GREEN IN
15 RED IN
16 BLANKING
1 RIGHT OUT (1)
2 RIGHT IN (2)
3 LEFT OUT (3)
6 LEFT IN (4)
8 MODE (1)
19 VIDEO OUT (2)
20 VIDEO IN (3)
CN8901 AV2
1 RIGHT OUT (5)
2 RIGHT IN (6)
3 LEFT OUT (7)
6 LEFT IN (8)
10 MODE (2)
10 AV LINK
15 C IN (5)
19 VIDEO OUT (6)
20 VIDEO IN (9)
CN8902 A4V
1 RIGHT OUT (9)
2 RIGHT IN (10)
3 LEFT OUT (11)
6 LEFT IN (12)
8 MODE 4 (3)
15 C IN AV4 (4)
19 VIDEO OUT
20 VIDEO IN AV4 (3)
CN8101 (1/2)
A13 AV LINK
A8 AV3 LUM IN
A7 AV3 C IN
A6 AV3 RIGHT IN
B6 AV3 LEFT IN
B14 SCL
A14 SDA
A10 CVBS1 IN
A15 CVBS OUT (TEXT)
B15 AUDIO RESET
B9 AM1
A9 QSSI IN
TO A BOARD CN1801
AMP Q8818
IC8801 MAIN AUDIO/VIDEO SWITCH
32 RTV
36 (R2) AV1-R
25 LTV
29 (L2) AV1-L
18 MODE 1
60 AV1-V (CV IN 2)
40 (R02) AV2-R OUT
35 (R3) AV2-R
41 (L02) AV2-L OUT
28 (L3) AV2-L
19 MODE 2
52 AV2-C(C1)
9 AV2 OUT(CV01)
58 AV2-V(Y1)
33 (R5) AV4-R
26 (L5) AV4-L
20 MODE 3
49 (C3) AV4-C
54 AV4-V(YB)
56 AV3-V(Y2)
51 (C2) AV3-C
34 (R4) AV3-R
27 (L4) AV3-L
MAIN Y OUT 11
MAIN C OUT 13
(CO2) SUB C OUT 47
(YO2) SUB Y OUT 45
IC8500 DIGITAL COMB FILTER
LUMINANCE OUT 16
CHROMA OUT 15
6 CLOCK IN
PNR 16
NTPLI 15
AMP Q8300
AMP Q8302
IC8301 MAIN COLOR DECODER
25 B I
26 G I
27 R I
15 YS 3
46 SFC OUT
13 SCL
14 SDA
SCL
SDA
5 COMB Y
7 COMB C/ FORGED S
45 COMB SYS
1 CVBS/YI
48 CI
Cr OUT 23
Cb OUT 22
Y OUT 21
MAIN L OUT 39
MAIN R OUT 38
HPR OUT 3 24
HPL OUT 3 23
CVBS OUT 3
MAIN L
MAIN R
HPR
HPL
AMP Q8308
AMP Q8309
AMP Q8310
IC8401 SUB COLOR DECODER
48 CI
1 CVBS/YI
Y OUT 21
U OUT 22
V OUT 23
AMP Q8406
AMP Q8405
AMP Q8403
IC8802 SUB AUDIO/VIDEO SWITCH
11 AV4 C
4 AV4 Y
15 AV3 C
2 AV3 Y
Y OUT 3
C OUT 13
IC8700 AUTOWIDE
6 AD IN
SDA 16
SCL 15
SDA
SCL
CN8101 (2/2)
V-M (2) A2
U-M (1) A25
Y-M (3) B25
HEADPHONE LEFT OUT B4
HEADPHONE RIGHT OUT A4
SURROUND SPEAKER (4) A3
CENTRE SPEAKER (1) A2
LEFT SPEAKER (3) A1
RIGHT SPEAKER (2) B1
HEADPHONE RIGHT OUT A4
HEADPHONE LEFT OUT B4
HP MUTE A5
QSS 2 A11
Y-S (7) A21
U-S (8) A20
V-S (9) B19
AM 2 B11
TO A BOARD CN1801
AUDIO RESET
QSS1
AM1
BUFFER Q8200
BUFFER Q8201
IC8200 SOUND PROCESSOR
21 POWER ON RESET
67 IF IN1
68 IF COMMON IN
69 IF IN 2
60 MONO IN (AM)
71 XTAL IN
72 XTAL OUT
X8200 18.432MHz
MAIN L 56 AV MAIN L IN
MAIN R 57 AV MAIN R IN
RIGHT OUT (9) 36 TV OUT R
LEFT OUT (11) 37 TV OUT L
SCL 2 SCL
SDA 3 SDA
SURROUND OUT 25
SPEAKER OUT R 27
SPEAKER OUT L 28
SUBWOOFER OUT 30
CENTER OUT 24
IC8201 OUTPUT AMP
12 SUR. IN
10 RIGHT IN
5 LEFT IN
3 CENTER IN
SUR. OUT 14
RIGHT OUT 8
LEFT OUT 7
CENTER OUT 1
SURROUND SPEAKER (4)
RIGHT SPEAKER (2)
LEFT SPEAKER (3)
CENTER SPEAKER (1)
IC8151 I2C SWITCH
SDA 14 SDA
SCL 15 SCL
3 DA 4
SWO 2
IC8150 FM DEMULATOR
1 AM IN
3 FM SIF
SW 13
IC8101 HP OUT
HP L 6 L IN
HP R 7 R IN
L OUT 8
R OUT 1
HEADPHONE L OUT
HEADPHONE R OUT
HP MUTE SWITCH Q8100, Q8101
J8901 VARIABLE OUT
L
R

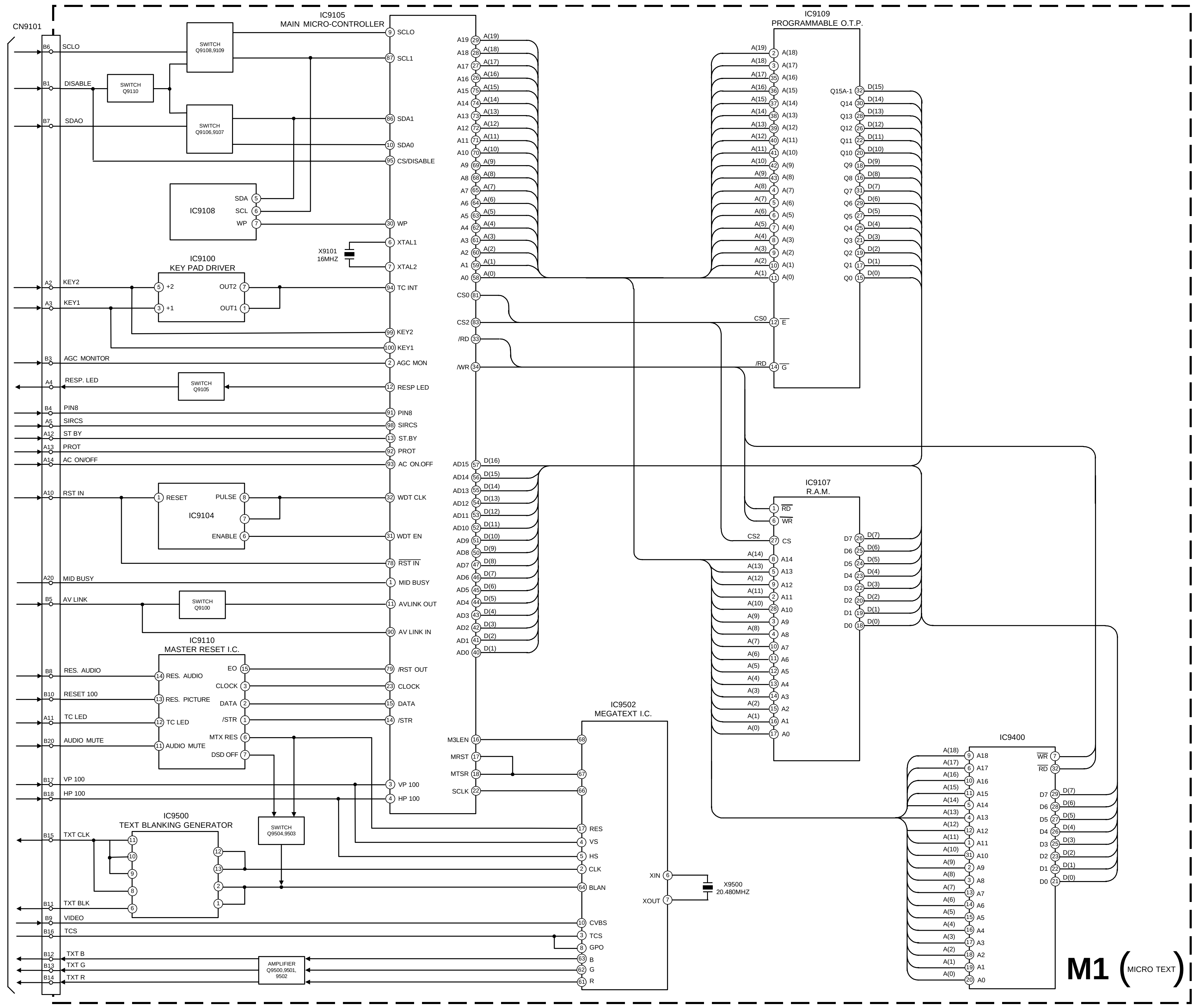

A
SIGNAL AND AUDIO AMP
TU1326
SCL 4
SDA 5
AGC MONITOR 11
AM1 14
QSS1 15
CVBS1 16
SCL
SDA
AGC MONITOR
BUFFER Q1328, Q1329
BUFFER Q1326, Q1327
CN1801
A9 QSS 1 OUT
B9 AM 1
A10 CVBS 1 OUT
A1 AUDIO LEFT
A3 AUDIO SURROUND
A2 AUDIO CENTER
B1 AUDIO RIGHT
A5 HEADPHONE MUTE
A4 HEADPHONE RIGHT IN
B4 HEADPHONE LEFT IN
A6 AV3 RIGHT OUT
B6 AV3 LEFT OUT
A7 AV3 CHROMA OUT
A8 AV3 LUMINANCE OUT
A13 AV LINK I/O
B13 MODE (PIN B)
A15 CVBS IN (TEXT)
B15 AUDIO RESET
B18 H PULSE SUB IN
A19 V PULSE SUB IN
B19 V SUB IN
A20 U SUB IN
A21 Y SUB IN
B22 H PULSE MAIN IN
A23 V PULSE MAIN IN
A24 V MAIN IN
A25 U MAIN IN
B25 Y MAIN IN
TO J BOARD CN8101
MUTE SW Q1201
MUTE SW Q1208
IC1126 AUDIO AMPLIFIER LEFT
9 INPUT
OUTPUT 1
10 STBY/MUTE
IC1126 AUDIO AMPLIFIER RIGHT
10 STBY/MUTE
OUTPUT 1
9 INPUT
AUDIO PROTECTION Q1226,1227, 1626
IC1400 I/O EXPANDER
1 OV PROT
9 AUDIO PROT
10 OC PROT
IC1176 AUDIO AMPLIFIER CENTER AND SURROUND
SURROUND 13 INST+
CENTER 8 INC+
OUTS 1
6 MUTE
OUTC 3
11 MUTE
CN1601
STANDBY 5
AC ON/OFF 9
OVER VOLTAGE 11
OVER CURRENT PROT 13
TO D BOARD CN6101
CN1703
HEADPHONE RIGHT OUT 1
HEADPHONE LEFT OUT 3
AV3 CHROMA IN 5
AV3 LUMINANCE IN 7
AV3 LEFT OUT 9
AV3 RIGHT OUT 11
TO H5 BOARD CN7103
CN1401
HORIZONTAL DEFL A1
VERTICAL DEFL A6
RED TEXT OUT A10
GREEN TEXT OUT B10
TEXT BLANKING OUT A11
BLUE TEXT OUT B11
EXTRA PARABOLA B1
HORIZONTAL DRIVE A2
FLYBACK PULSE B2
DYNAMIC FOCUS A3
EAST/WEST B3
VERTICAL SAW+ A4
VERTICAL PROTECT A5
RGB AFC B5
VERTICAL SAW- A7
X-RAY A8
ABL B8
VM MODULATION B7
Y-100 OUT B18
U-100 OUT B19
DPIC SW A20
V-100 OUT B20
TO E BOARD CN4101
CN1602
9
13
7
15
5
17
18
10
19
14
6
16
TO D BOARD CN6102
CN1200
Y-100 IN A2
U-100 IN A3
V-100 IN A4
DPIC SW A5
A6
HP-SUB OUT A10
V-PULSE SUB OUT A11
V SUB OUT A12
U SUB OUT A13
Y SUB OUT A14
Y MAIN OUT A16
U MAIN OUT A17
V MAIN OUT A18
V-PULSE MAIN OUT A19
H-PULSE MAIN OUT A20
TO B2 BOARD CN2100
CN1901
B5 AV LINK I/O
B4 MODE (PIN 8)
B9 CVBS IN (TEXT)
B8 AUDIO RESET
B11 TEXT BLANKING IN
B12 BLUE TEXT IN
B13 GREEN TEXT IN
B14 RED TEXT IN
B17 V SYNC TEXT
B18 H SYNC TEXT
A12 STANDBY
A13 PROTECTION
A14 AC ON/OFF
B20 AUDIO MUTE
B3 AGC MONITOR
A4
A5
A3 KEY 2
A2 KEY 1
TO M1 BOARD CN9101
STANDBY
+6.5V
IC1601 +5VREG
+5V ANALOGUE
IC1602 +5VREG
+5V DIGITAL
+10.5
IC1604 +9VREG
+9V
+4.5V
IC1605 +3.5VREG
+3.5V
CN1700
5 SIRCS
4 LED
TO H6 BOARD CN7100
CN1702
1
3
TO H5 BOARD CN7102

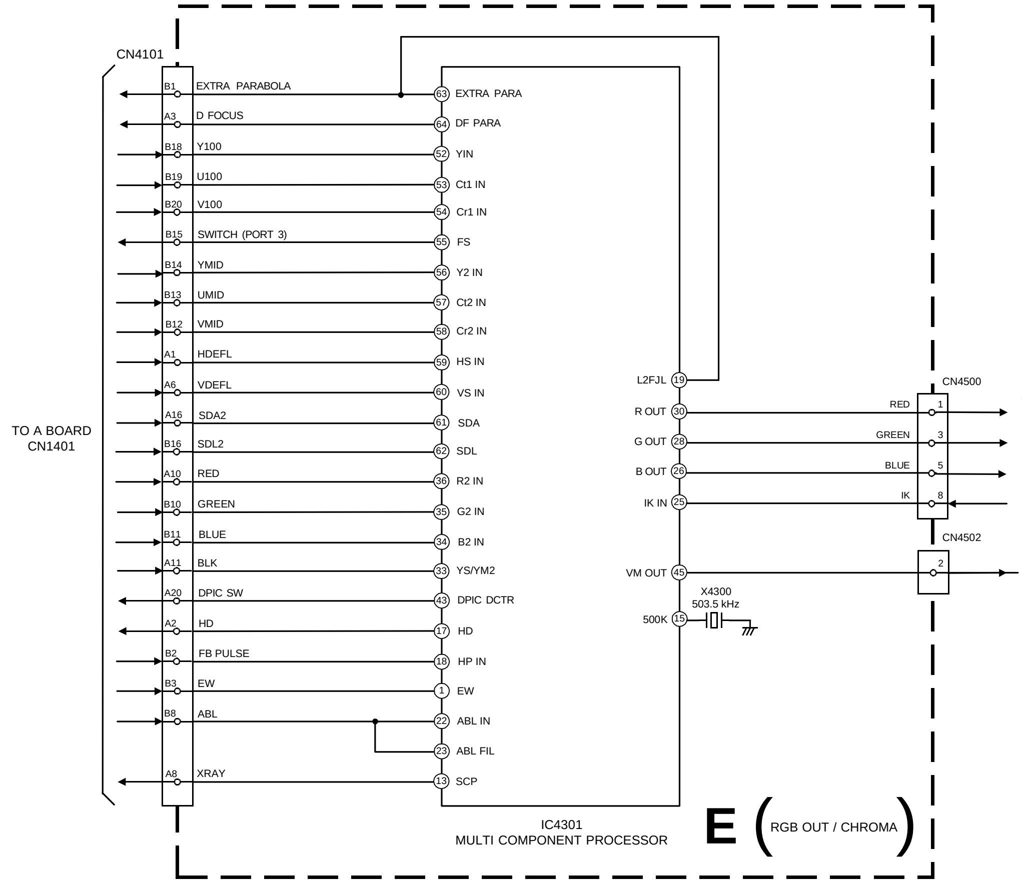
5-1. BLOCK DIAGRAMS (3)

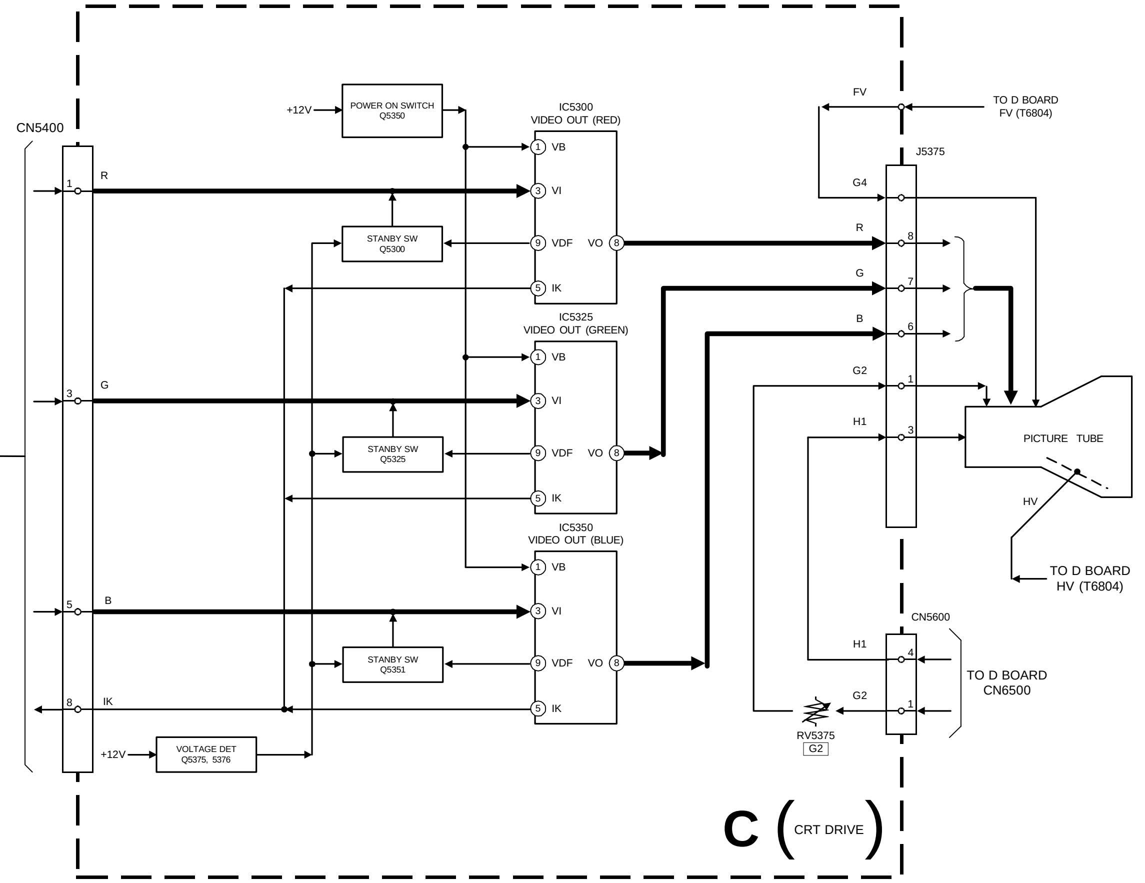

CN6601 (1/2)
ABL1
E/W
HP2
HDIN
SCL
SDA2
HP1
EX PARA
VFB
TO D BOARD CN6600
IC6102 ACTIVE HORIZONTAL SIZE ADJUSTMENT CONTROL
IC6100 HORIZONTAL DRIVE PULSE GENERATOR
IC6101 HORIZONTAL DRIVE PULSE GENERATOR
SWITCH Q6104 Q6106
SWITCH Q6104 Q6106
IC6250 MAIN HDY & VDY CONVERGANCE CONTROLLER
HD
SCL
SDA
VSTST
HSTAT
REFVOUT
HDYCON
VSAW
IC6251 O/P DRIVE STAGE FOR DYNAMIC CONVERGNCE
CY AMP Q6253, 6254
IC6103 HORIZONTAL LINEARITY & INNER PIN CONTROL
IC6350 QP SIGNAL SHAPING
V PROT Q6403, Q6404 Q6402, Q6401
+12V
IC6351 QP SIGNAL SHAPING
IC6352 QP OUTPUT DRIVE STAGE
QP OUT Q6358
IC6356 ROTATION POWER AMPLIFIER
+5V
IC6355 ROTATION PRE-AMPLIFIER
IC6354 `H' TRAP MULTIPLEXER/SIGNAL CONDITIONER & `H' LIN
IC6302 D/A FOR FOCUS, ROTATION, `H' TRAP
P4
P7
P5
P2
P6
CN6622
CY-
CY+
CN6601 (2/2)
HD2OUT
HD1OUT
IN PIN
L IN
VM MOD
DF DRIVE
V PROT
TO D BOARD CN6600
CN6502
QP-
TO VM BOARD CN5602
CN6633
TO ROTATION COIL
D1 (DEFLECTION)

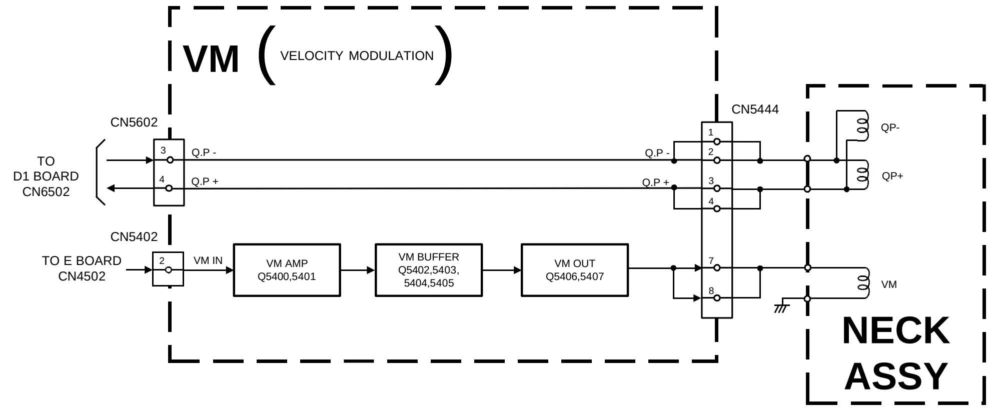

CN2100
TO A BOARD CN1200
VP100
HP100
Y MAIN IN
U MAIN IN
V MAIN IN
Y 100
U 100
V 100
RESET 100
SWITCH Q3300
VM-OUT/MUTE
H-PULSE MAIN IN
V-PULSE MAIN IN
IC3301
HRD
PFD-INH
LLD
IC3302
VDEF
HDEF
Y7IN
Y6IN
Y5IN
Y4IN
Y3IN
Y2IN
Y1IN
Y0IN
U1IN
U0IN
V1IN
V0IN
Y50IN
U50IN
V50IN
Y-OUT
U-OUT
V-OUT
UP-RST
BLND
HA
HRD
P1.1
LLD
VP50
V0OUT
V1OUT
U0OUT
U1OUT
Y0OUT
Y1OUT
Y2OUT
Y3OUT
Y4OUT
Y5OUT
Y6OUT
Y7OUT
WE
SWCK
RSTW
RE
JE2
IC3303
V0IN
V1IN
U0IN
U1IN
Y0IN
Y1IN
Y2IN
Y3IN
Y4IN
Y5IN
Y6IN
Y7IN
WEIN
VPULSE
IC3304
RSTR
VIN0
VIN1
UIN0
UIN1
YIN0
YIN1
YIN2
YIN3
YIN4
YIN5
YIN6
YIN7
YOUT7
YOUT6
YOUT5
YOUT4
YOUT3
YOUT2
YOUT1
YOUT0
UOUT1
UOUT0
VOUT1
VOUT0
WE
SWCK
RSTN
RE
IE
OE
SRCK
B2 (100 MHz)

5-1. BLOCK DIAGRAMS (4)

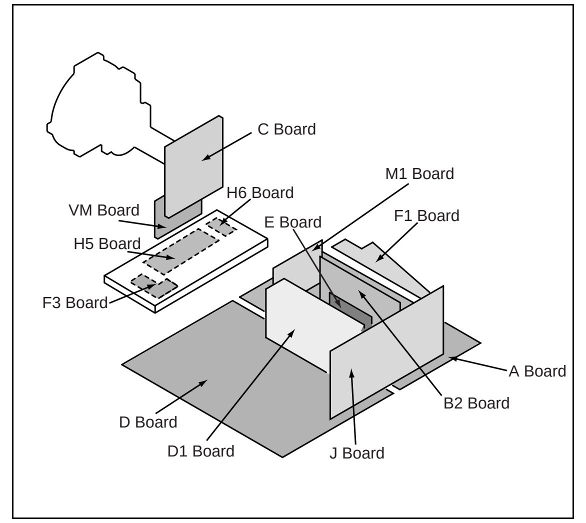

CN9101
TO A BOARD CN1901
IC9105 MAIN MICRO-CONTROLLER
SWITCH Q9108,9109
SWITCH Q9110
SWITCH Q9106,9107
IC9108
SDA
SCL
WP
X9101 16MHZ
IC9100 KEY PAD DRIVER
SWITCH Q9105
IC9104
RESET
PULSE
ENABLE
SWITCH Q9100
IC9110 MASTER RESET I.C.
IC9500 TEXT BLANKING GENERATOR
SWITCH Q9504,9503
AMPLIFIER Q9500,9501, 9502
IC9109 PROGRAMMABLE O.T.P.
IC9107 R.A.M.
IC9502 MEGATEXT I.C.
X9500 20.480MHZ
IC9400
SCLO
DISABLE
SDAO
KEY2
KEY1
AGC MONITOR
RESP. LED
PIN8
SIRCS
ST BY
PROT
AC ON/OFF
RST IN
MID BUSY
AV LINK
RES. AUDIO
RESET 100
TC LED
AUDIO MUTE
VP 100
HP 100
TXT CLK
TXT BLK
VIDEO
TCS
TXT B
TXT G
TXT R
SCLO
SCL1
SDA1
SDA0
CS/DISABLE
WP
XTAL1
XTAL2
TC INT
AGC MON
RESP LED
ST.BY
AC ON.OFF
WDT CLK
WDT EN
RST IN
AVLINK OUT
AV LINK IN
/RST OUT
CLOCK
DATA
/STR
M3LEN
MRST
MTSR
SCLK
RES
VS
HS
CLK
BLAN
CVBS
GPO
XIN
XOUT
M1 (MICRO TEXT)


CN4101
TO A BOARD CN1401
EXTRA PARABOLA
D FOCUS
Y100
U100
V100
SWITCH (PORT 3)
YMID
UMID
VMID
HDEFL
VDEFL
SDA2
SDL2
RED
GREEN
BLUE
BLK
DPIC SW
HD
FB PULSE
EW
ABL
XRAY
EXTRA PARA
DF PARA
YIN
Ct1 IN
Cr1 IN
FS
Y2 IN
Ct2 IN
Cr2 IN
HS IN
VS IN
SDA
SDL
R2 IN
G2 IN
B2 IN
YS/YM2
DPIC DCTR
HP IN
ABL IN
ABL FIL
SCP
L2FJL
R OUT
G OUT
B OUT
IK IN
VM OUT
500K
X4300 503.5 kHz
CN4500
CN4502
TO VM BOARD CN5402
IC4301 MULTI COMPONENT PROCESSOR
E (RGB OUT / CHROMA)


CN5400
TO VM BOARD CN5402
POWER ON SWITCH Q5350
+12V
IC5300 VIDEO OUT (RED)
IC5325 VIDEO OUT (GREEN)
IC5350 VIDEO OUT (BLUE)
STANBY SW Q5300
STANBY SW Q5325
STANBY SW Q5351
VOLTAGE DET Q5375, 5376
VB
VI
VDF
VO
IK
FV
TO D BOARD FV (T6804)
J5375
G4
G2
H1
PICTURE TUBE
HV
TO D BOARD HV (T6804)
CN5600
TO D BOARD CN6500
RV5375
G2
C (CRT DRIVE)


VM (VELOCITY MODULATION)
CN5602
TO D1 BOARD CN6502
Q.P -
Q.P +
CN5402
TO E BOARD CN4502
VM IN
VM AMP Q5400,5401
VM BUFFER Q5402,5403, 5404,5405
VM OUT Q5406,5407
CN5444
QP-
QP+
VM
NECK ASSY

5-2. CIRCUIT BOARD LOCATION


C Board
M1 Board
VM Board
H6 Board
E Board
F1 Board
H5 Board
F3 Board
A Board
B2 Board
D Board
D1 Board
J Board

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in µF unless otherwise noted.
- pF : µµF 50WV or less are not indicated except for electrolytic types.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Electrical power rating : 1/4W

- Chip resistors are 1/10W
- All resistors are in ohms.
  k = 1000 ohms, M = 1000,000 ohms
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- △ : internal component.
- ▭ : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital mutimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerences.
- ━━ : B + bus.
- ▬ ▬ ▬ : B - bus.
- ➡ : RF signal path.
- ⊥ : earth - ground.
- ⏚ : earth - chassis.

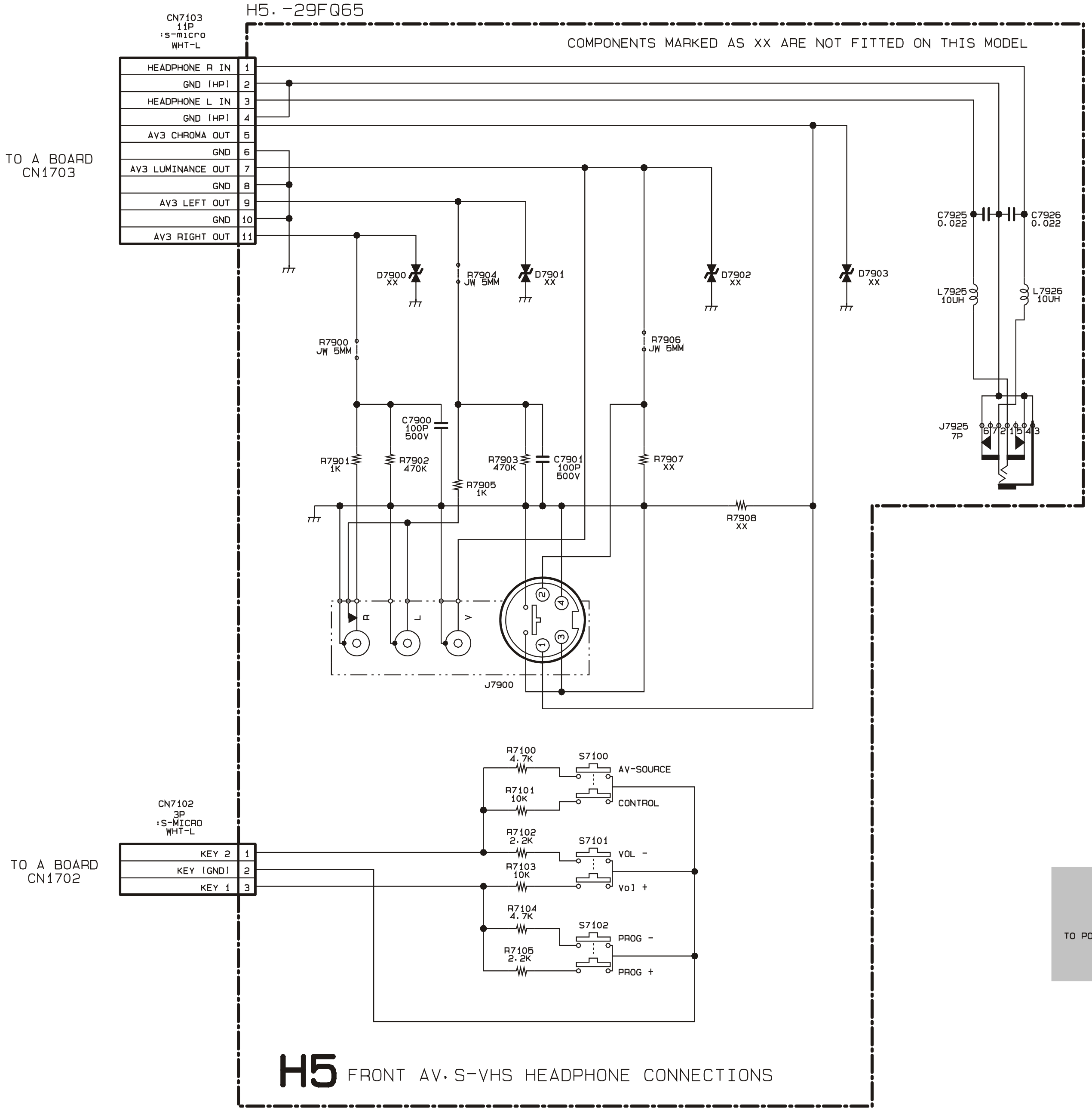
Reference Information

RESISTOR	**RN**	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
	⊠	: ADJUSTMENT RESISTOR
COIL	**LF-8L**	: MICRO INDUCTOR
CAPACITOR	**TA**	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

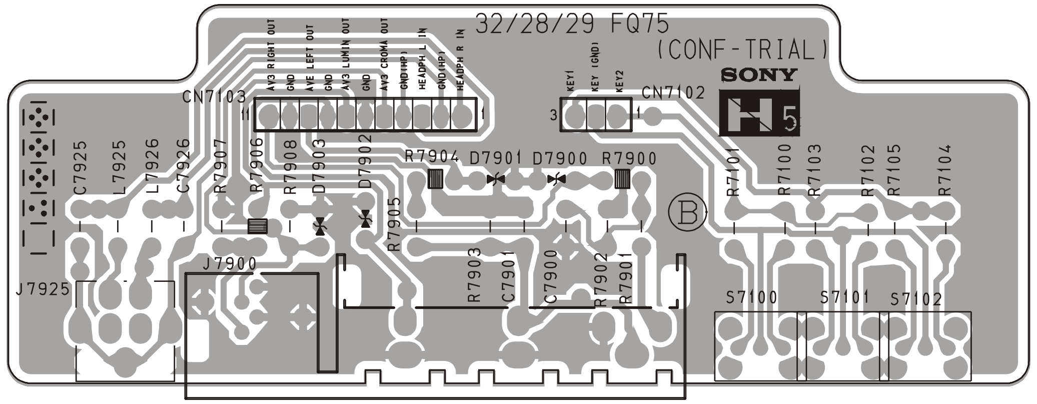
Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

Note : Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié. specified.

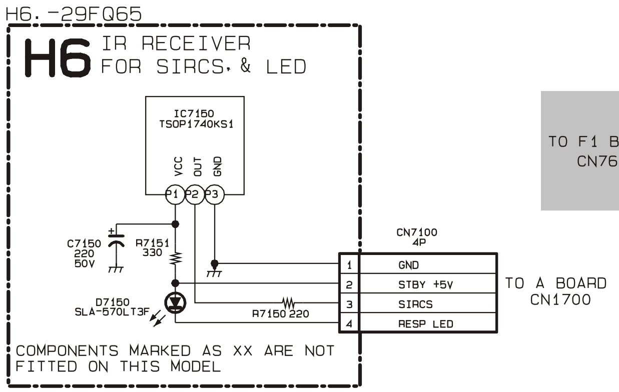
H5[FRONT AV, S-VIDEO]


H5.-29FQ65
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
CN7103 11P S-micro WHT-L
HEADPHONE R IN
GND (HP)
HEADPHONE L IN
GND (HP)
AV3 CHROMA OUT
GND
AV3 LUMINANCE OUT
GND
AV3 LEFT OUT
GND
AV3 RIGHT OUT
TO A BOARD CN1703
D7900 XX
R7904 JW 5MM
D7901 XX
D7902 XX
D7903 XX
C7925 0.022
C7926 0.022
L7925 10UH
L7926 10UH
J7925 7P
R7900 JW 5MM
R7906 JW 5MM
C7900 100P 500V
R7901 1K
R7902 470K
R7903 470K
C7901 100P 500V
R7905 1K
R7907 XX
R7908 XX
J7900
R7100 4.7K
S7100
AV-SOURCE
R7101 10K
CONTROL
CN7102 3P S-MICRO WHT-L
TO A BOARD CN1702
KEY 2
KEY (GND)
KEY 1
R7102 2.2K
S7101
VOL -
R7103 10K
Vol +
R7104 4.7K
S7102
PROG -
R7105 2.2K
PROG +
H5 FRONT AV. S-VHS HEADPHONE CONNECTIONS

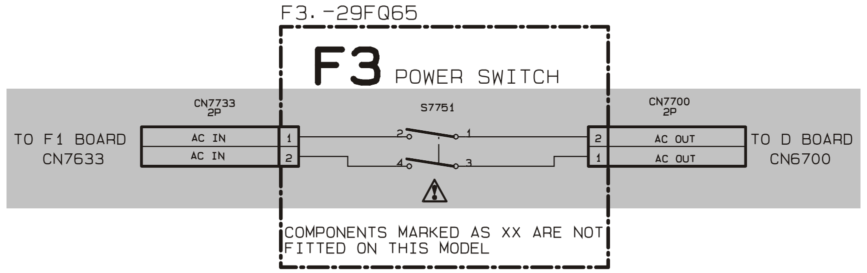
H5[PRINTED WIRING BOARD]


32/28/29 FQ75
(CONF-TRIAL)
SONY
H5
CN7103
CN7102
KEY1
KEY (GND)
KEY2
C7925
L7925
C7926
R7907
R7906
R7908
D7903
D7902
R7904
D7901
D7900
R7900
R7905
R7903
C7901
C7900
R7902
R7901
R7101
R7100
R7103
R7102
R7105
R7104
J7925
J7900
S7100
S7101
S7102

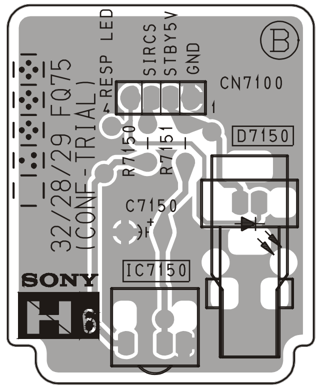
H6[IR RECEIVER FOR SIRCS AND LED]


H6.-29FQ65
H6 IR RECEIVER FOR SIRCS. & LED
IC7150 TSOP1740KS1
VCC
OUT
GND
C7150 220 50V
R7151 330
D7150 SLA-570LT3F
R7150 220
CN7100 4P
GND
STBY +5V
SIRCS
RESP LED
TO A BOARD CN1700
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

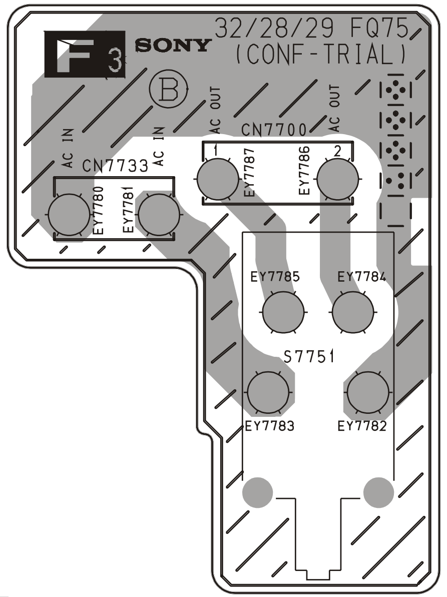
F3[POWER SWITCH]


F3.-29FQ65
F3 POWER SWITCH
CN7733 2P
S7751
CN7700 2P
TO F1 BOARD CN7633
AC IN
AC IN
AC OUT
AC OUT
TO D BOARD CN6700
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

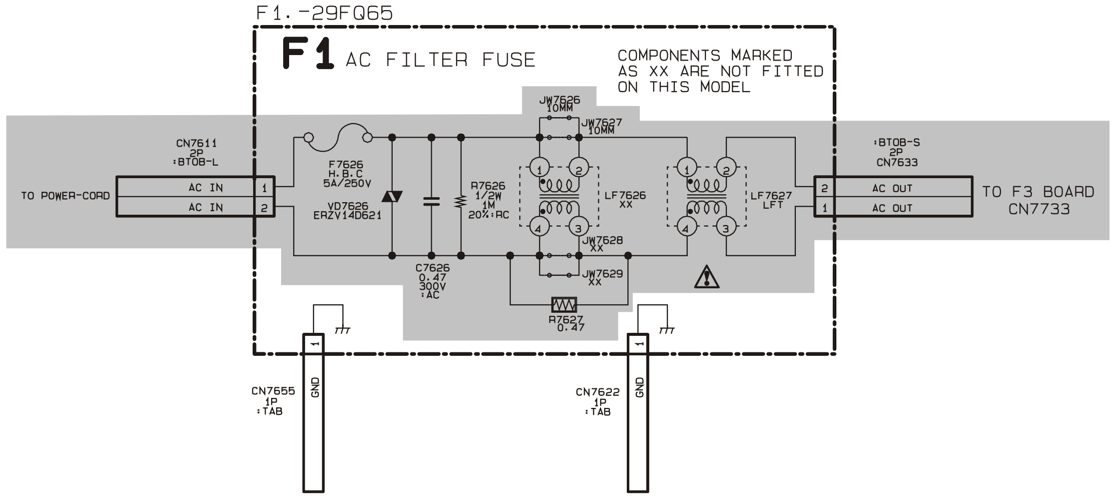
H6[PRINTED WIRING BOARD]


RESP LED
SIRCS
STBY5V
GND
CN7100
32/28/29 FQ75
(CONF-TRIAL)
R7150
R7151
D7150
C7150
IC7150
SONY
H6

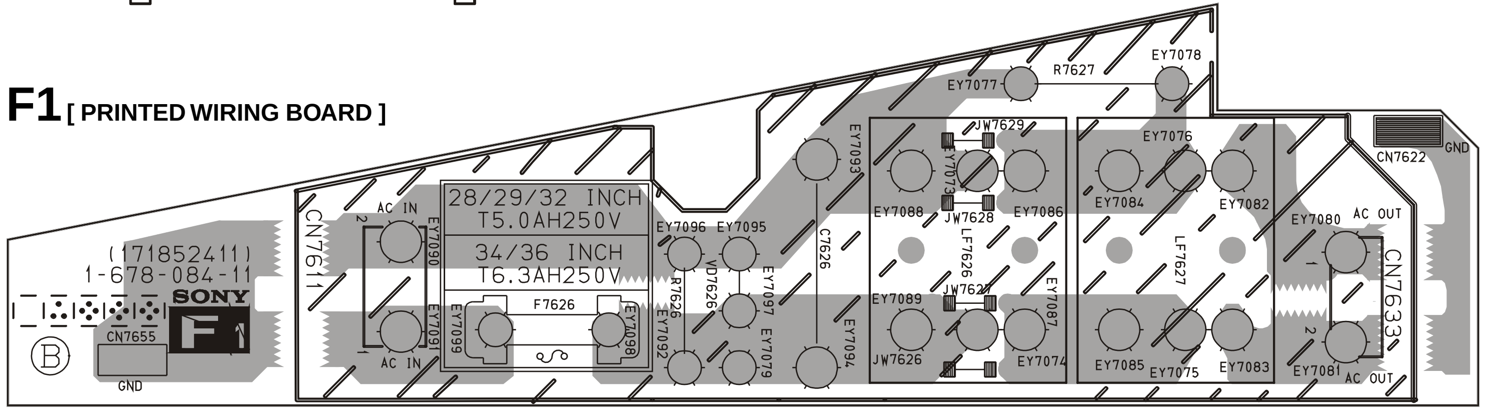
F3[PRINTED WIRING BOARD]

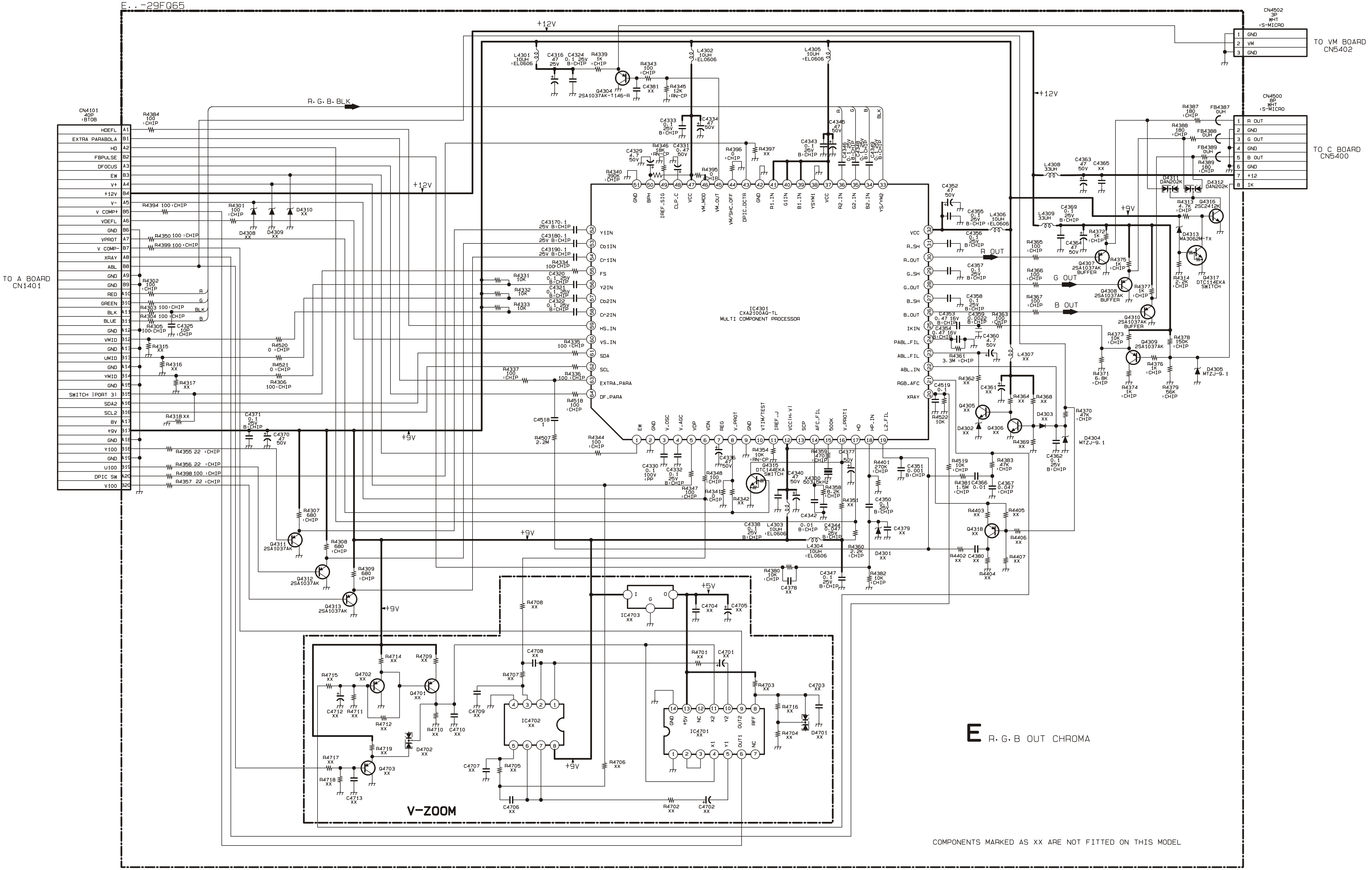

F3
SONY
32/28/29 FQ75
(CONF-TRIAL)
AC IN
CN7733
AC OUT
CN7700
EY7780
EY7781
EY7787
EY7786
EY7785
EY7784
S7751
EY7783
EY7782

F1[AC FILTER FUSE]


F1.-29FQ65
F1 AC FILTER FUSE
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
CN7611 2P BT08-L
TO POWER-CORD
AC IN
AC IN
F7626 H.B.C 5A/250V
VD7626 ERZV14D621
R7626 1/2W 1M 20%AC
JW7626 10MM
JW7627 10MM
LF7626 XX
LF7627 LFT
JW7628 XX
JW7629 XX
C7626 0.47 300V AC
R7627 0.47
BT08-S 2P CN7633
AC OUT
AC OUT
TO F3 BOARD CN7733
CN7655 1P TAB
GND
CN7622 1P TAB
GND

F1[PRINTED WIRING BOARD]

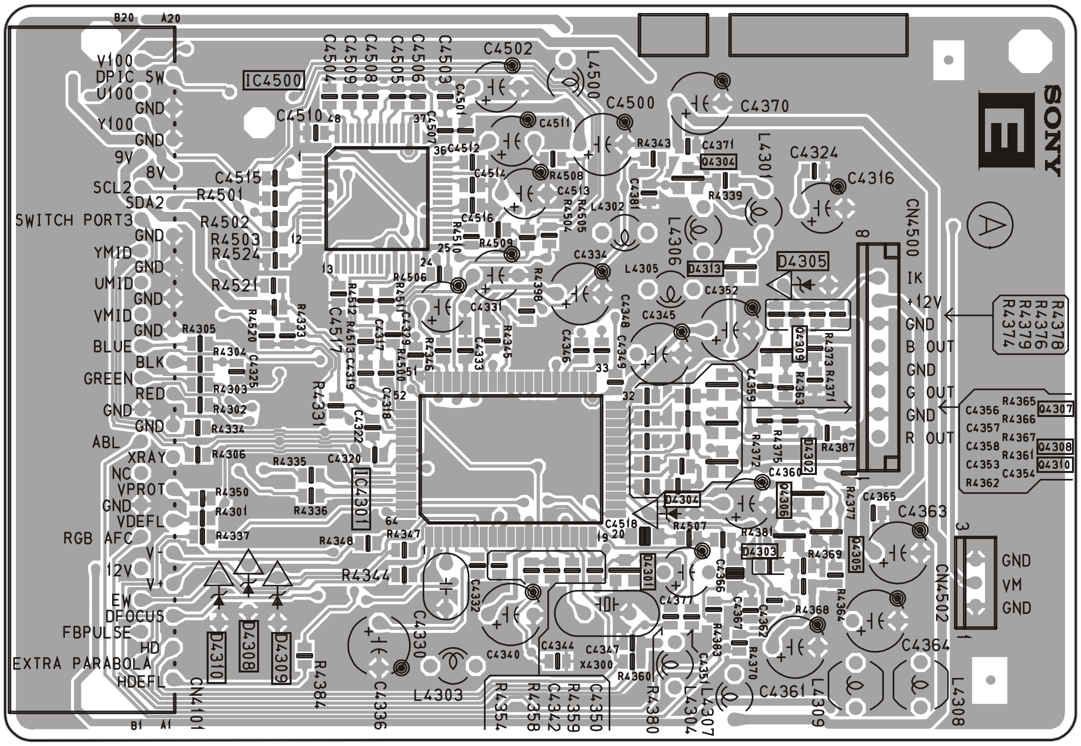

(171852411)
1-678-084-11
SONY
F1
CN7655
GND
CN7611
AC IN
AC IN
28/29/32 INCH
T5.0AH250V
34/36 INCH
T6.3AH250V
F7626
EY7090
EY7091
EY7099
EY7098
EY7096
EY7095
EY7092
R7626
VD7626
EY7097
EY7079
EY7093
C7626
EY7094
EY7077
R7627
EY7078
JW7629
EY7088
JW7628
LF7626
EY7086
EY7089
JW7627
JW7626
EY7087
EY7074
EY7076
EY7084
EY7082
LF7627
EY7085
EY7075
EY7083
EY7080
AC OUT
CN7633
EY7081
AC OUT
CN7622
GND


E..-29FQ65
TO A BOARD CN1401
CN4101 40P BTOB
HDEFL
EXTRA PARABOLA
HD
FBPULSE
DFOCUS
EW
V+
+12V
V-
V COMP+
VDEFL
GND
VPROT
V COMP-
XRAY
ABL
RED
GREEN
BLK
BLUE
VMID
UMID
YMID
SWITCH (PORT 3)
SDA2
SCL2
8V
+9V
Y100
U100
DPIC SW
V100
R.G.B.BLK
+12V
+9V
+5V
IC4301 CXA2100AQ-TL MULTI COMPONENT PROCESSOR
Y1IN
Cb1IN
Cr1IN
FS
Y2IN
Cb2IN
Cr2IN
HS_IN
VS_IN
SDA
SCL
EXTRA_PARA
DF_PARA
VCC
R_SH
R_OUT
G_SH
G_OUT
B_SH
B_OUT
IKIN
PABL_FIL
ABL_FIL
ABL_IN
RGB_AFC
XRAY
R OUT
G OUT
B OUT
Q4304 2SA1037AK-T146-R
Q4307 2SA1037AK BUFFER
Q4308 2SA1037AK BUFFER
Q4310 2SA1037AK BUFFER
Q4309 2SA1037AK
Q4316 2SC2412K
Q4317 DTC114EKA SWITCH
Q4315 DTC144EKA SWITCH
Q4311 2SA1037AK
Q4312 2SA1037AK
Q4313 2SA1037AK
D4311 DAN202K
D4312 DAN202K
D4313 MA3062M-TX
D4305 MTZJ-9.1
D4304 MTZJ-9.1
CN4502 3P WHT S-MICRO
TO VM BOARD CN5402
GND
VM
CN4500 8P WHT S-MICRO
TO C BOARD CN5400
R OUT
G OUT
B OUT
+12
IK
IC4703
IC4702
IC4701
V-ZOOM
E R.G.B OUT CHROMA

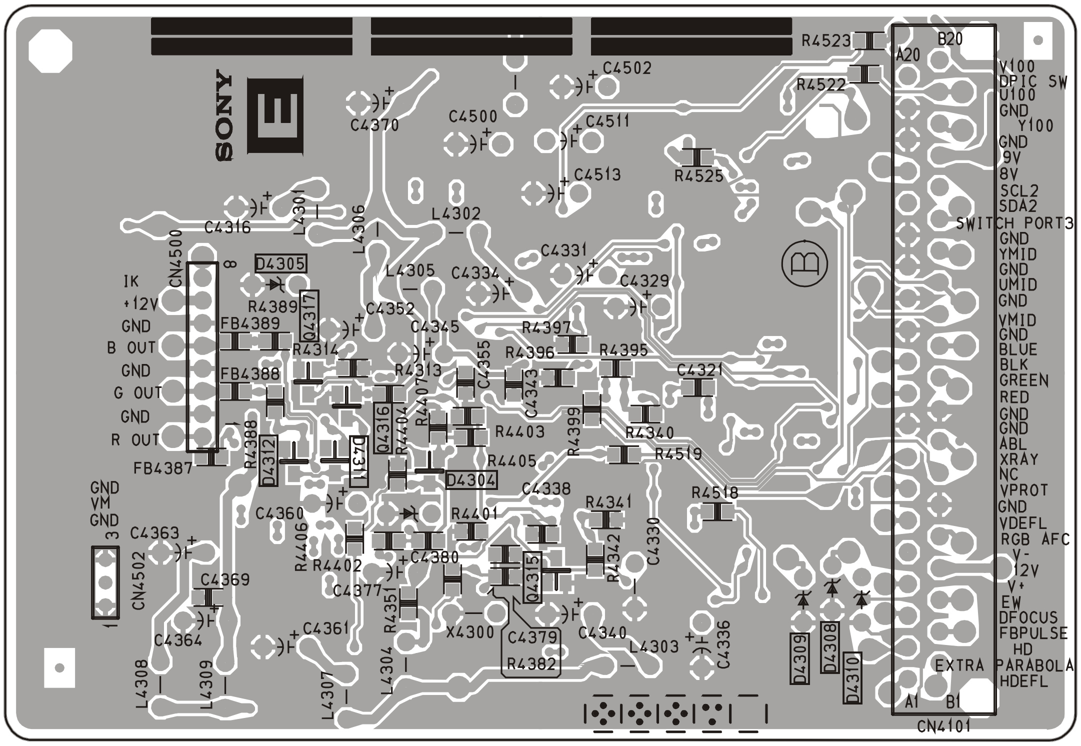
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

E [R, G, B OUT CHROMA]

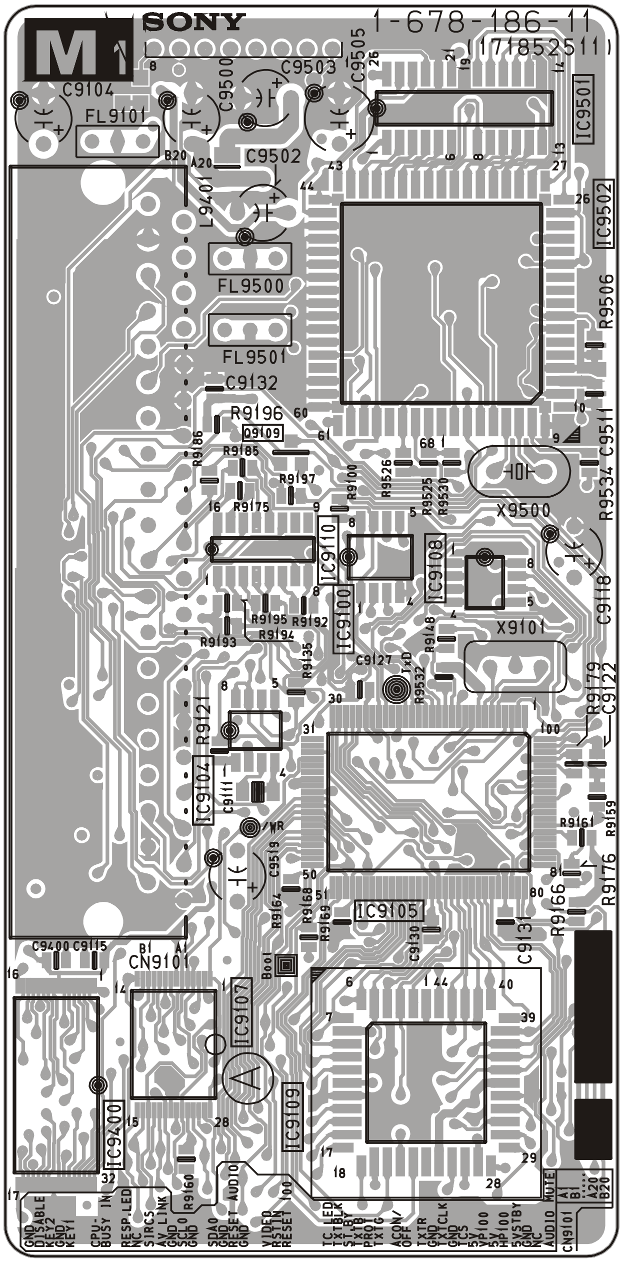
E [PRINTED WIRING BOARD (A side)]


B20
A20
V100
DPIC SW
U100
GND
Y100
GND
9V
8V
SCL2
SDA2
SWITCH PORT3
GND
YMID
GND
UMID
GND
VMID
GND
BLUE
BLK
GREEN
RED
GND
GND
ABL
XRAY
NC
VPROT
GND
VDEFL
RGB AFC
V-
12V
V+
EW
DFOCUS
FBPULSE
HD
EXTRA PARABOLA
HDEFL
B1
A1
CN4101
IC4500
IC4301
C4502
L4500
C4500
C4370
C4324
C4316
L4301
L4306
L4305
D4305
D4313
Q4304
CN4500
IK
+12V
GND
B OUT
GND
G OUT
GND
R OUT
R4378
R4376
R4379
R4374
C4356
C4357
C4358
C4353
R4362
R4365
R4366
R4367
R4361
C4354
Q4307
Q4308
Q4310
C4363
CN4502
GND
VM
GND
C4364
L4308
L4309
C4361
L4307
L4304
R4380
C4350
R4359
C4342
R4358
R4354
L4303
C4336
C4330
R4384
D4310
D4308
D4309
R4344
X4300
SONY
E
A

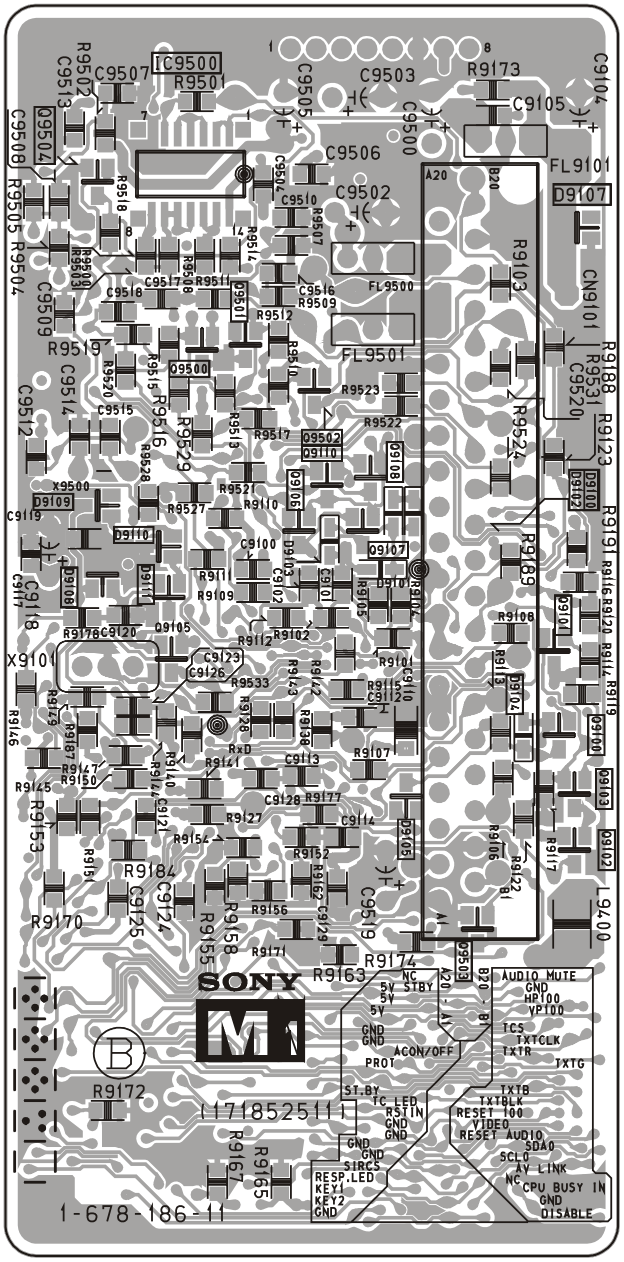
E [PRINTED WIRING BOARD (B side)]

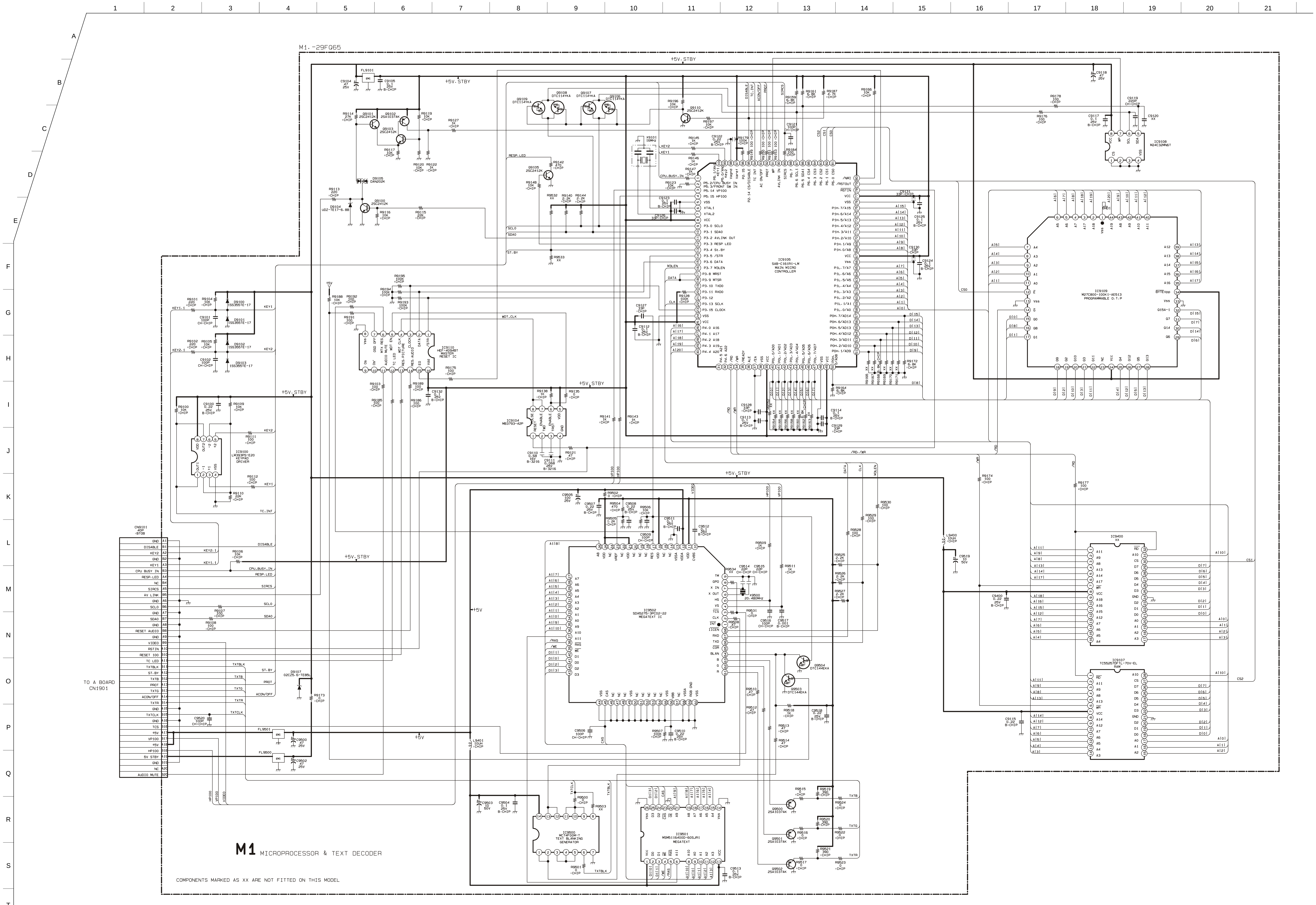

R4523
R4522
A20
B20
V100
DPIC SW
U100
GND
Y100
GND
9V
8V
SCL2
SDA2
SWITCH PORT3
GND
YMID
GND
UMID
GND
VMID
GND
BLUE
BLK
GREEN
RED
GND
GND
ABL
XRAY
NC
VPROT
GND
VDEFL
RGB AFC
V-
12V
V+
EW
DFOCUS
FBPULSE
HD
EXTRA PARABOLA
HDEFL
A1
B1
CN4101
SONY
E
B
C4502
C4370
C4500
C4511
C4513
R4525
C4316
L4301
L4306
L4302
CN4500
IK
+12V
GND
B OUT
GND
G OUT
GND
R OUT
D4305
R4389
FB4389
FB4388
FB4387
Q4317
R4314
R4313
C4352
C4345
L4305
C4334
C4331
C4329
R4397
R4396
R4395
C4355
C4343
C4321
R4399
R4340
R4403
R4405
R4519
R4518
Q4316
Q4311
Q4312
R4388
R4404
R4407
D4304
C4338
R4341
R4342
C4330
R4401
C4360
R4406
R4402
C4380
C4377
Q4315
R4351
X4300
C4379
R4382
C4340
L4303
C4336
GND
VM
GND
CN4502
C4363
C4369
C4364
C4361
L4308
L4309
L4307
L4304
D4309
D4308
D4310

M1 [PRINTED WIRING BOARD (A side)]

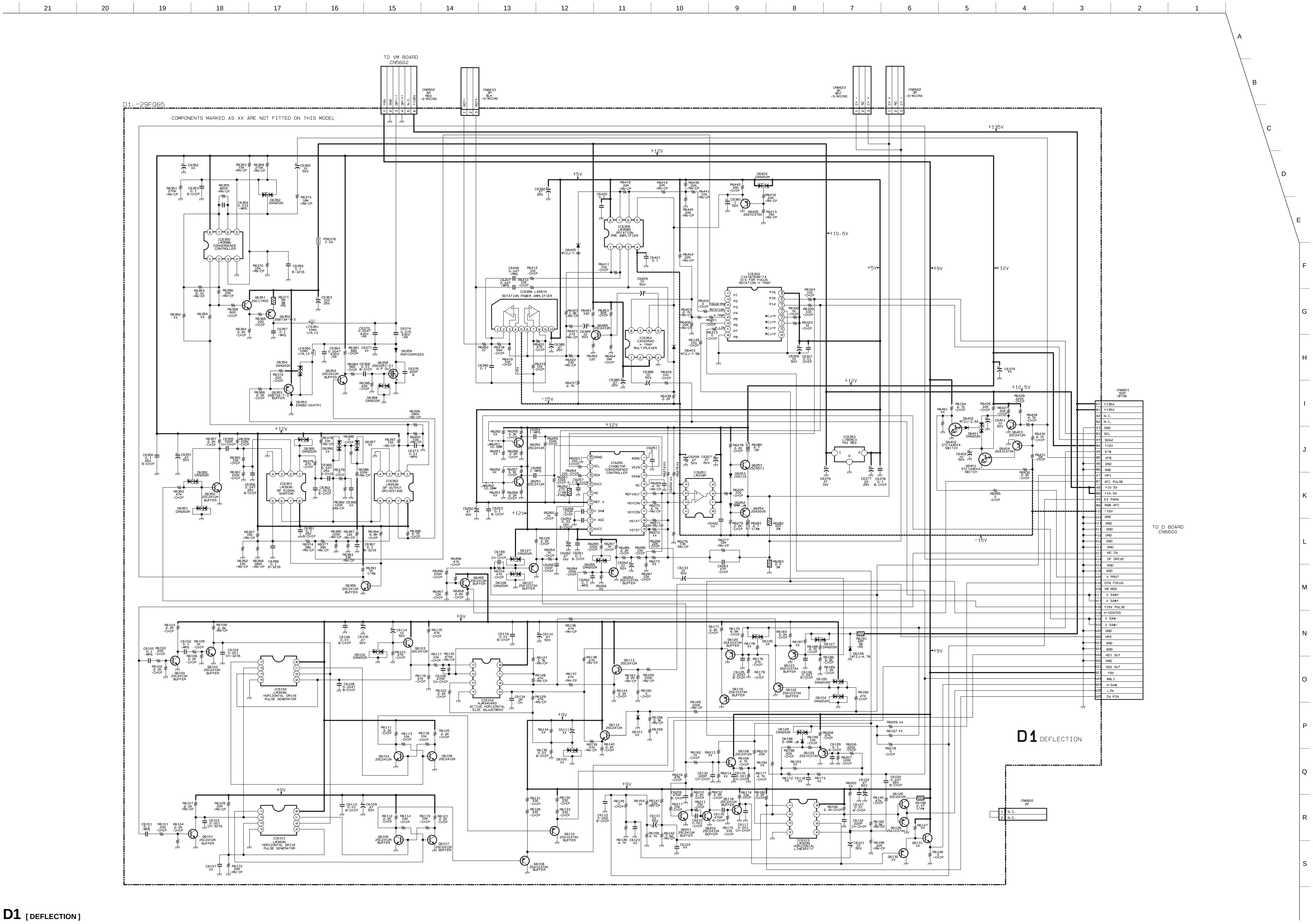

SONY
M1
1-678-186-11
(1718525111)
C9104
FL9101
C9500
C9503
C9505
IC9501
C9502
L9401
IC9502
FL9500
FL9501
R9506
C9132
R9196
D9109
R9186
R9185
R9197
R9175
R9100
R9526
R9525
R9530
X9500
C9511
R9534
IC9110
IC9100
IC9108
C9118
R9195
R9192
R9194
R9193
R9135
X9101
R9148
TxD
C9127
R9532
R9179
C9122
R9121
IC9104
C9111
/WR
C9519
R9164
R9168
R9169
IC9105
C9130
C9131
R9166
R9161
R9159
R9176
C9400
C9115
CN9101
IC9107
IC9109
IC9400
R9160
Boot
GND
DISABLE
KEY2
GND
KEY1
CPU-BUSY IN
RESP.LED
NC
SIRCS
AV LINK
GND
SCLO
GND
SDAO
GND
RESET AUDIO
VIDEO
RSTIN
RESET 100
TC LED
TXTBLK
ST.BY
TXTB
PROT
TXTG
ACON/OFF
TXTR
GND
TXTCLK
GND
TCS
5V
VP100
5V
HP100
5VSTBY
GND
NC
AUDIO MUTE
CN9101
A1
B1
A20
B20

M1 [PRINTED WIRING BOARD (B side)]

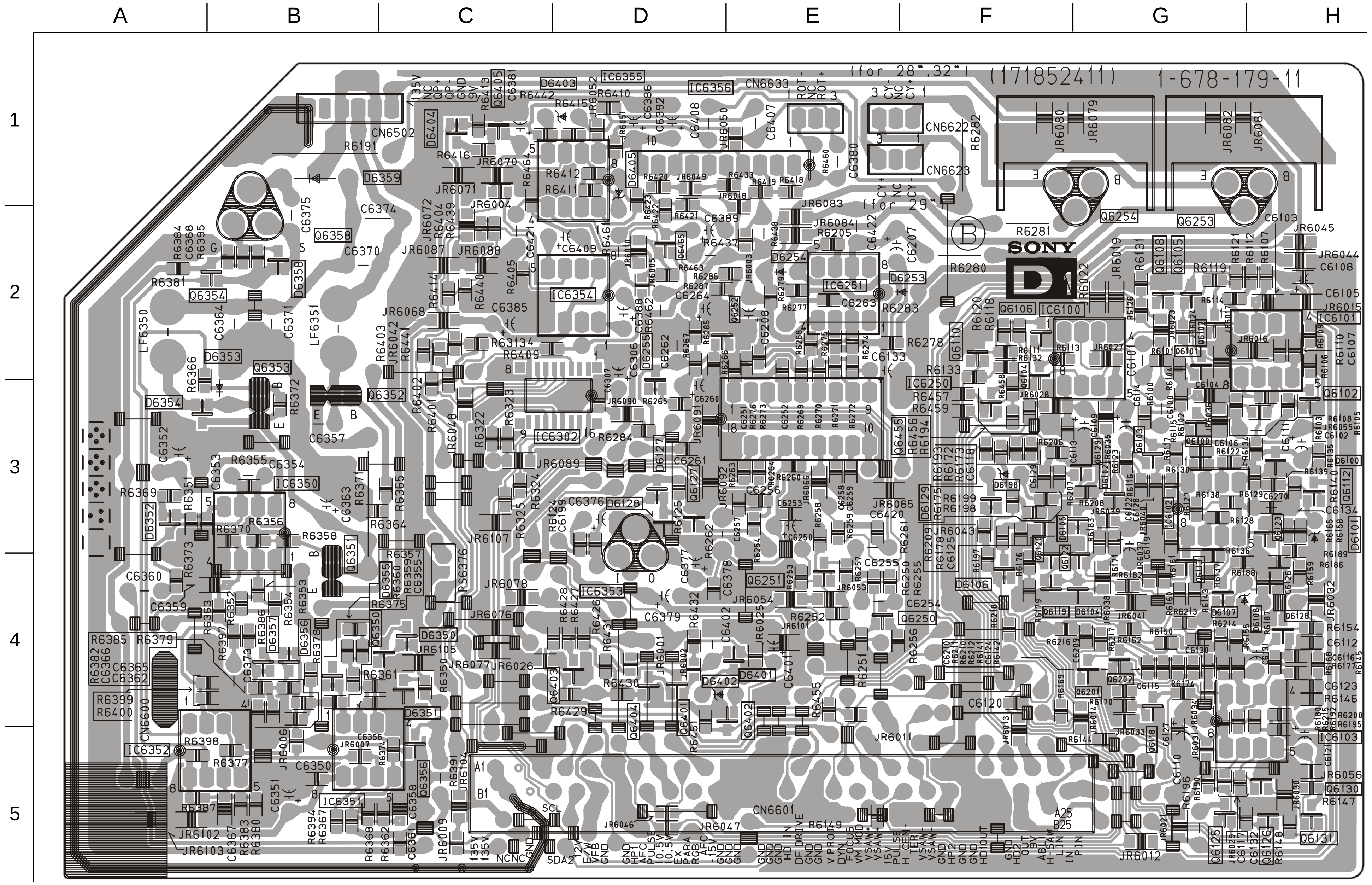

R9502
C9513
C9507
IC9500
R9501
C9505
C9503
R9173
C9104
C9105
C9508
D9504
R9505
R9504
C9509
C9506
C9504
C9510
R9507
C9502
FL9101
D9107
R9518
R9514
R9500
R9503
R9508
R9511
C9518
C9517
C9516
R9509
FL9500
R9103
CN9101
D9501
R9512
R9519
C9514
R9520
R9515
D9500
R9510
FL9501
R9188
R9531
C9520
C9512
R9516
R9529
R9523
R9522
R9524
R9123
C9515
R9528
R9513
R9517
D9502
D9110
D9108
D9102
D9100
X9500
D9109
R9521
R9527
R9110
D9106
R9191
C9119
D9110
C9100
D9103
D9107
R9189
C9118
C9117
D9108
D9111
R9111
R9109
C9102
C9101
R9105
D9104
R9104
R9116
R9120
R9176
C9120
D9105
R9112
R9102
R9108
D9101
R9114
X9101
C9123
C9126
R9533
R9143
R9142
R9101
R9115
C9121
C9110
R9113
D9104
R9119
R9179
R9146
R9187
R9128
R9138
D9100
RxD
R9141
C9113
R9107
R9145
R9147
R9150
R9140
R9144
C9121
C9128
R9177
D9103
R9153
R9127
C9114
R9154
D9105
R9106
R9117
R9122
D9102
R9151
R9184
R9152
R9162
C9519
L9400
R9170
C9125
C9124
R9158
R9155
R9156
C9129
R9171
R9174
R9163
D9503
SONY
M1
B
R9172
(1718525111)
R9167
R9165
1-678-186-11
NC
5V STBY
5V
5V
GND
GND
ACON/OFF
PROT
ST.BY
TC LED
RSTIN
GND
GND
GND
GND
SIRCS
RESP.LED
KEY1
KEY2
GND
AUDIO MUTE
GND
HP100
VP100
TCS
TXTCLK
TXTR
TXTG
TXTB
TXTBLK
RESET 100
VIDEO
RESET AUDIO
SDAO
SCLO
AV LINK
NC
CPU BUSY IN
GND
DISABLE
A20
A1
B20
B1


M1.-29FQ65
+5V.STBY
+5V
IC9105
SAB-C161RI-LM
MAIN MICRO CONTROLLER
IC9110
HEF4094BT
MASTER RESET IC
IC9104
MB3793-42P
IC9100
LM393PS-E20
KEYPAD DRIVER
IC9108
M24C32MN6T
IC9109
M27C800-100K1-AE513
PROGRAMMABLE O.T.P
IC9400
IC9107
TC55257DFTL-70V-EL
RAM
IC9502
SDA5275-3PC02-22
MEGATEXT IC
IC9500
MC74F00M-T
TEXT BLANKING GENERATOR
IC9501
MSM5116400D-60SJR1
MEGATEXT
CN9101
40P
-BT08
TO A BOARD
CN1901
X9101
16MHz
X9500
20.480MHz
M1 MICROPROCESSOR & TEXT DECODER
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

M1 [MICRO PROCESSOR AND TEXT DECODER]


21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
D1-29FQ65
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
TO VM BOARD CN5602
CN6502 6P RED :S-MICRO
+9V
GND
GM(+)
GM(-)
N.C.
+135V
CN6633 3P BLK :S-MICRO
ROT-
ROT+
CN6623 3P WHT :S-MICRO
CN6622 3P :S-MICRO
CY-
NC
CY+
+135V
+12V
+5V
+10.5V
+9V
-15V
IC6350 LM358N CONVERGENCE CONTROLLER
IC6355 LM358N ROTATION PRE AMPLIFIER
IC6356 LA6510 ROTATION POWER AMPLIFIER
IC6354 CA0005AD H TRAP MULTIPLEXER
IC6302 CXA1875AM-T4 D/A FOR FOCUS ROTATION H TRAP
IC6351 LM393N QP SIGNAL SHAPING
IC6352 LM393N QP OUTPUT DRIVESTAGE
IC6250 CXA8070P CONVERGENCE CONTROLLER
IC6251 LM318P
IC6353 L78O5CV +5V REG
Q6401 DTC144EKA SWITCH
Q6402 DTC144EKA SWITCH
IC6100 LM393N HORIZONTAL DRIVE PULSE GENERATOR
IC6101 LM393N HORIZONTAL DRIVE PULSE GENERATOR
IC6102 NJM3404AD ACTIVE HORIZONTAL SIZE ADJUSTMENT
IC6103 LM393N HORIZONTAL LINEARITY
CN6601 50P :BTOB
A1 +135V
B1 +135V
A2 N.C.
B2 N.C.
A3 GND
B3 SCL
A4 SDA2
B4 +12V
A5 E/W
B5 VFB
A6 GND
B6 GND
A7 HP1
B7 AFC PULSE
A8 +10.5V
B8 +10.5V
A9 EX PARA
B9 RGB AFC
A10 -15V
B10 GND
A11 GND
B11 GND
A12 GND
B12 GND
A13 GND
B13 HD IN
A14 DF DRIVE
B14 GND
A15 GND
B15 V PROT
A16 DYN FOCUS
B16 VM MOD
A17 V SAW+
B17 V SAW+
A18 +15V PULSE
B18 H-CENTER
A19 V SAW-
B19 V SAW-
A20 GND
B20 HP2
A21 GND
B21 GND
A22 HD1 OUT
B22 GND
A23 HD2 OUT
B23 +9V
A24 ABL1
B24 H-SAW
A25 LIN
B25 IN PIN
TO D BOARD CN6600
D1 DEFLECTION
CN6600 2P
1 N.C.
2 N.C.

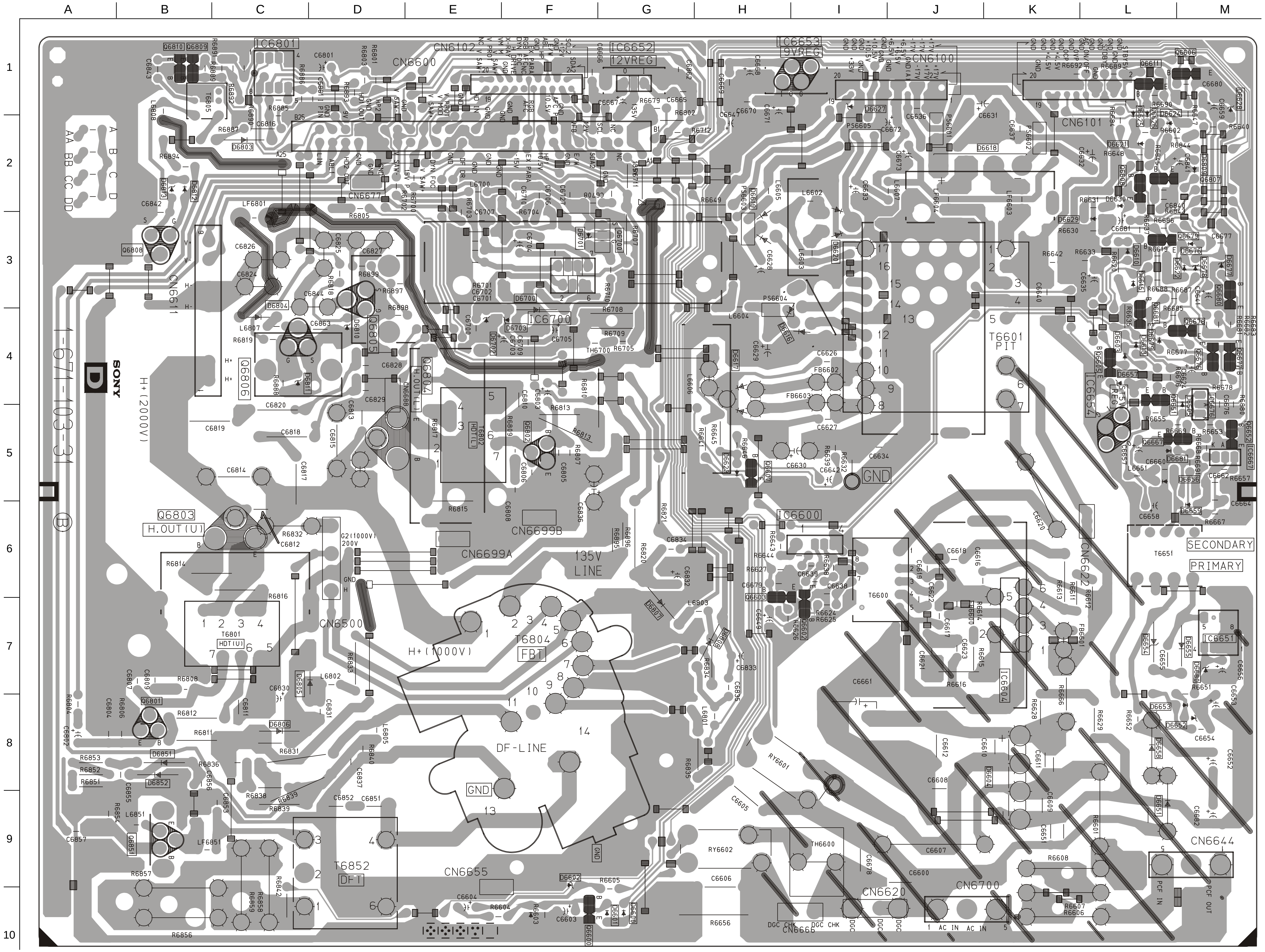
D1 [DEFLECTION]



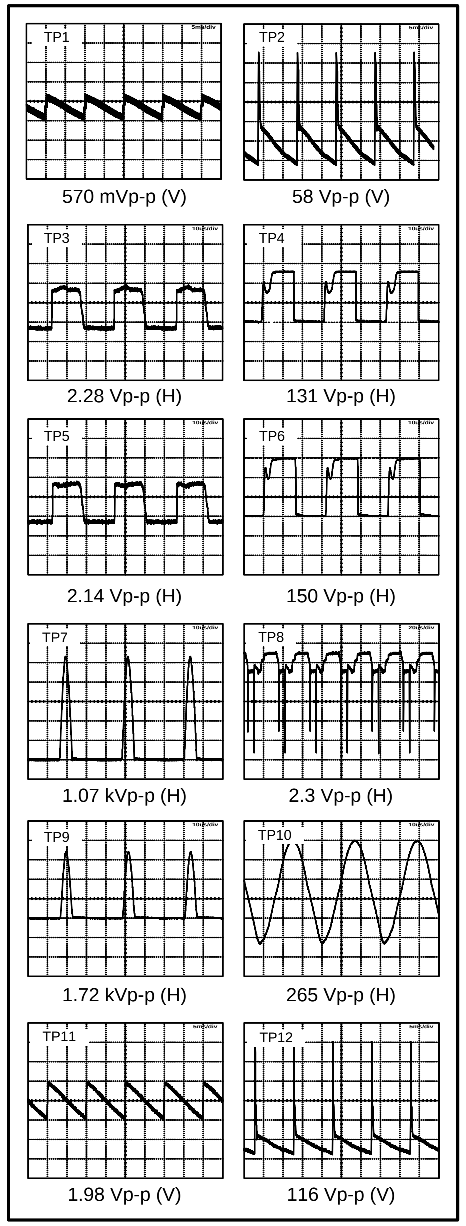
A
B
C
D
E
F
G
H
1
2
3
4
5
(for 28".32")
(171852411)
1-678-179-11
SONY
D1
CN6502
CN6633
CN6622
CN6623
CN6601
CN6600
IC6100
IC6101
IC6102
IC6103
IC6250
IC6251
IC6302
IC6350
IC6351
IC6352
IC6353
IC6354
IC6355
IC6356
JR6080
JR6079
JR6082
JR6081
Q6254
Q6253
LF6350
LF6351
A1
B1
A25
B25
SDA2
SCL
NC
NC

IC	
IC6100	G - 2
IC6101	H - 2
IC6102	G - 3
IC6103	H - 5
IC6250	F - 3
IC6251	D - 2
IC6302	D - 3
IC6350	B - 3
IC6351	B - 5
IC6352	A - 5
IC6353	D - 4
IC6354	D - 2
IC6355	D - 1
IC6356	E - 1
TRANSISTOR	
Q6100	G - 3
Q6101	G - 2
Q6102	H - 3
Q6103	G - 3
Q6104	F - 3
Q6105	G - 2
Q6106	F - 2
Q6107	H - 2
Q6108	G - 2
Q6110	F - 2
Q6112	H - 3
Q6113	H - 4
Q6118	G - 5
Q6119	G - 4
Q6120	G - 4
Q6122	G - 4
Q6123	H - 3
Q6125	H - 5
Q6126	H - 5
Q6127	D - 3
Q6128	H - 4
Q6129	G - 3
Q6201	G - 4
Q6202	G - 4
Q6250	F - 4
Q6251	E - 4
Q6252	E - 2
Q6350	C - 4
Q6351	B - 5
Q6352	C - 3
Q6353	B - 3
Q6354	B - 2
Q6356	B - 5
Q6358	B - 2
Q6401	D - 5
Q6402	E - 5
Q6403	D - 4
Q6404	D - 5
Q6405	C - 1
Q6455	F - 3
Q6465	D - 2
DIODE	
D6102	G - 3
D6104	G - 4
D6105	G - 3
D6107	H - 4
D6108	H - 4
D6127	D - 3
D6128	D - 3
D6129	F - 3
D6253	F - 2
D6255	D - 2
D6350	C - 4
D6351	C - 5
D6352	A - 3
D6353	B - 2
D6354	A - 3
D6355	C - 4
D6358	B - 2
D6359	C - 1
D6401	E - 4
D6402	E - 4
D6403	D - 1
D6404	C - 1
D6405	D - 1

D1[PRINTED WIRING BOARD]


A
B
C
D
E
F
G
H
I
J
K
L
M
1
2
3
4
5
6
7
8
9
10
SONY
D
1-671-103-31
AA BB CC DD
A B C D
H+(2000V)
H+(1000V)
IC6801
IC6652
12VREG
IC6653
9VREG
CN6600
CN6102
CN6100
CN6101
CN6611
Q6805
Q6806
Q6804
H.OUT(L)
Q6803
H.OUT(U)
IC6700
T6802
HDT(L)
CN6699B
CN6699A
135V LINE
T6801
HDT(U)
CN6500
T6804
FBT
DF-LINE
GND
T6852
DFT
CN6655
IC6600
T6601
PIT
IC6654
T6600
IC6604
IC6651
CN6622
SECONDARY
PRIMARY
T6651
RY6601
RY6602
TH6600
CN6620
CN6700
CN6666
CN6644
DGC CHK
AC IN
PCF IN
PCF OUT
LF6801
LF6851
LF6602
LF6603
LF6604
PS6601
PS6602
PS6603
PS6604
PS6605
FB6601
FB6602
FB6603
G2(1000V)
200V

D board Waveforms



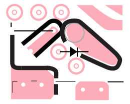
IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC6600	1	134.7
	2	2.5
	3	9.1
	4	0
IC6700	1	1.4
	3	-12.2
	5	-0.8
	6	15.0
	7	1.4
IC6801	1	0
	2	0
	3	0
	5	2.2
	6	6.7
	7	0.1

Semiconductor Voltage Table

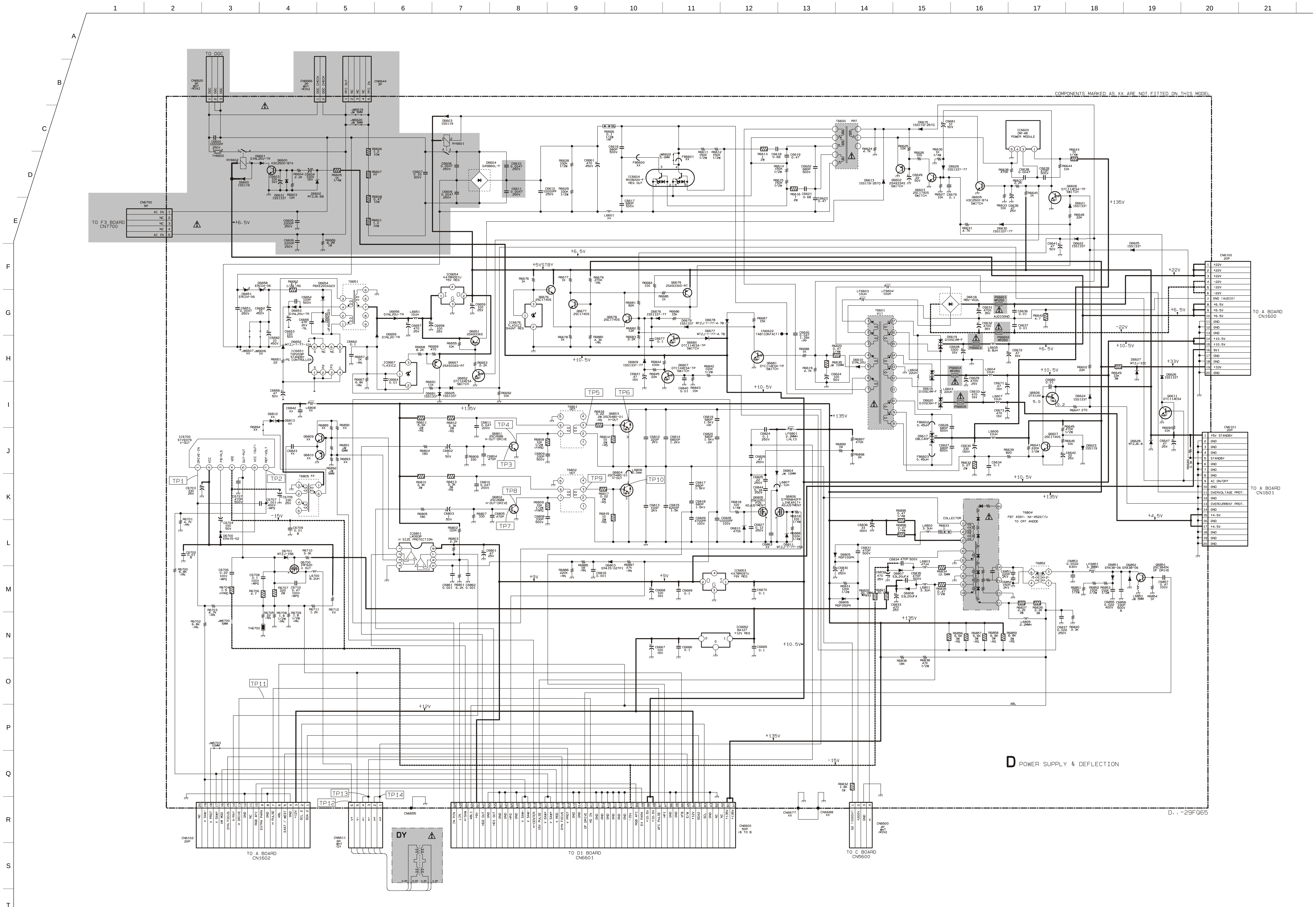
Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)
Q6676	1.8	2.5	5	Q6603	0	0	11.8
Q6677	1.8	2.1	5	Q6605	0	0.7	0
Q6678	1.8	1.6	5	Q6608	0	0	3.5
Q6807	0	6.4	0	Q6681	0	11.4	0
Q6801	0	0.3	61	Q6607	0.3	0.5	5
Q6802	0	-0.4	73.7	Q6851	0	-1	84.6
Q6803	0	135.2	0	**Ref**	**(s)**	**(g)**	**(d)**
Q6804	0	0	135.6	Q6805	0	2	22
Q6602	9.1	11.8	0	Q6806	0	1.4	135.7

D [PRINTED WIRING BOARD]

IC	
IC6600	I - 6
IC6604	K - 8
IC6651	M - 7
IC6652	G - 1
IC6653	I - 1
IC6654	L - 5
IC6667	N - 5
IC6676	M - 5
IC6700	F - 4
IC6801	C - 1
TRANSISTORS	
Q6600	G - 10
Q6602	I - 7
Q6603	H - 7
Q6605	L - 4
Q6606	M - 1
Q6607	I - 5
Q6608	L - 2
Q6611	M - 1
Q6651	M - 5
Q6652	N - 5
Q6667	M - 5
Q6676	M - 4
Q6677	N - 4
Q6678	M - 4
Q6679	M - 3
Q6680	M - 3
Q6681	M - 4
Q6700	G - 3
Q6801	B - 8
Q6802	F - 5
Q6803	B - 6
Q6804	E - 4
Q6805	D - 4
Q6806	C - 4
Q6807	M - 2
Q6851	B - 9
DIODE	
D6600	G - 10
D6601	G - 10
D6602	F - 10
D6603	L - 4
D6604	K - 9
D6605	M - 5
D6610	M - 3
D6613	M - 4
D6615	M - 3
D6616	I - 4
D6617	H - 4
D6618	K - 2
D6619	H - 3
D6620	I - 3
D6621	L - 2
D6622	M - 3
D6623	H - 5
D6624	M - 2
D6625	M - 2
D6626	M - 2
D6627	J - 1
D6628	N - 1
D6629	L - 3
D6630	L - 2
D6631	F - 10
D6651	M - 8
D6652	M - 8
D6653	M - 8
D6654	M - 7
D6655	M - 7
D6656	M - 5
D6658	M - 8
D6659	M - 6
D6676	M - 3
D6677	M - 3
D6678	M - 3
D6679	M - 4
D6681	M - 5
D6701	G - 3
D6805	C - 8
D6806	C - 8
D6807	G - 7
D6808	H - 7
D6809	M - 2
D6810	D - 4
D6811	D - 4
D6851	B - 8
D6852	B - 8

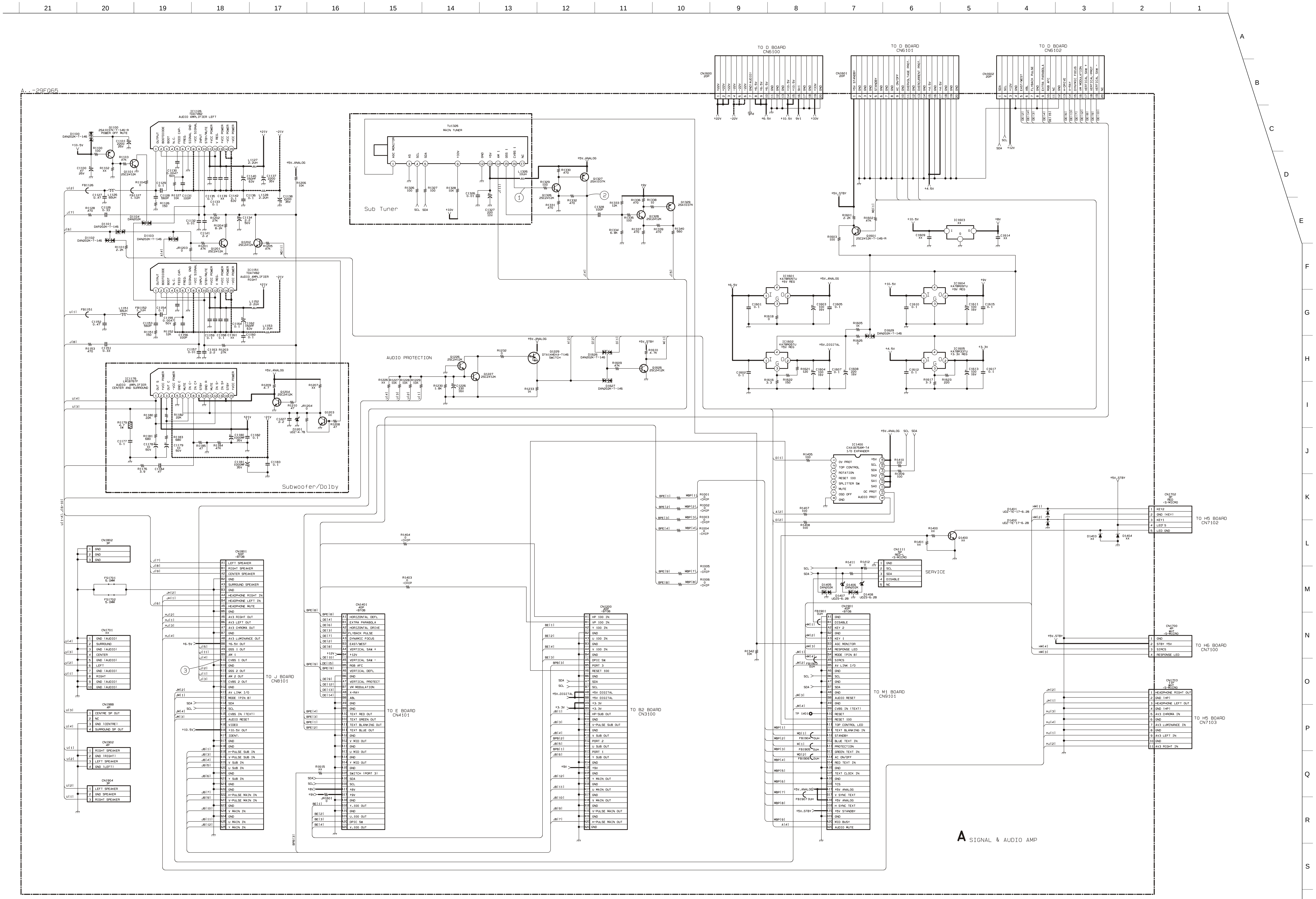


NOTE:
Portions of the circuit marked as shown are high voltage areas. Use care to prevent electric shock during inspection or repair.


COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

TO DGC
TO F3 BOARD CN7700
TO A BOARD CN1600
TO A BOARD CN1601
TO A BOARD CN1602
TO D1 BOARD CN6601
TO C BOARD CN5600
DY
+6.5V
+5VSTBY
+10.5V
+135V
+22V
-22V
+33V
+4.5V
+9V
+12V
-15V
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
T6804 FBT ASSY: NX-4522//U TO CRT ANODE
IC6600 SW-48 POWER MODULE
IC6651 TDP208P STANDBY PS CONTROLLER
IC6700 STV9379 V-OUT
IC6801 LM393P H SIZE PROTECTION
D POWER SUPPLY & DEFLECTION
D..-29FQ65

D [POWER SUPPLY AND DEFLECTION]


A..-29FQ65
TO D BOARD CN6100
TO D BOARD CN6101
TO D BOARD CN6102
TU1326 MAIN TUNER
Sub Tuner
IC1126 TDA7482 AUDIO AMPLIFIER LEFT
IC1151 TDA7482 AUDIO AMPLIFIER RIGHT
IC1176 LM1876TF AUDIO AMPLIFIER CENTER AND SURROUND
Subwoofer/Dolby
AUDIO PROTECTION
IC1400 CXA1875AM-T4 I/O EXPANDER
TO J BOARD CN8101
TO E BOARD CN4101
TO B2 BOARD CN3100
TO M1 BOARD CN9101
TO H5 BOARD CN7102
TO H6 BOARD CN7100
TO H5 BOARD CN7103
SERVICE
A SIGNAL & AUDIO AMP

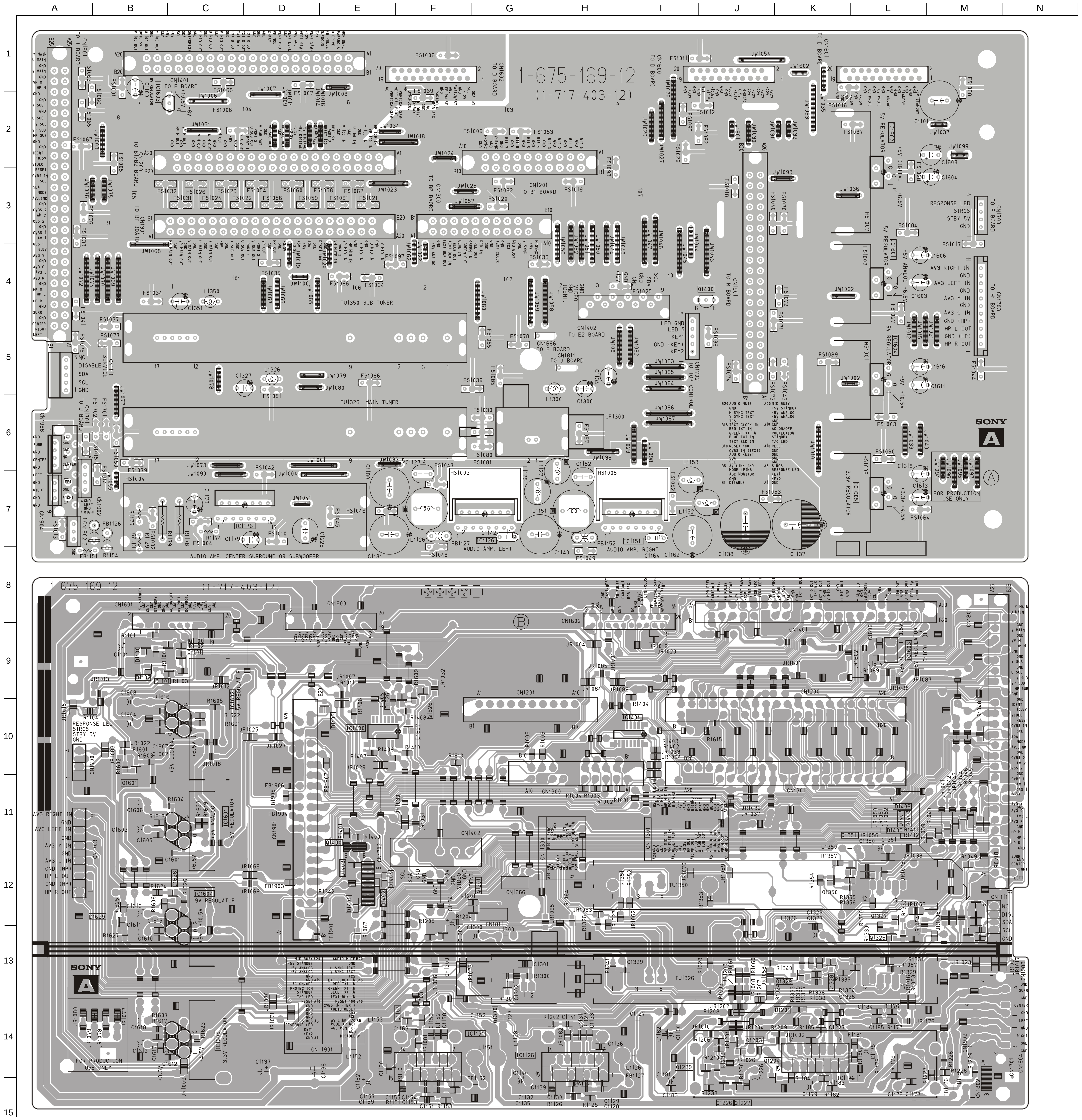
A **[SIGNAL AND AUDIO AMPLIFIER]**

IC Voltage Table

IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC1126	1	0
	2	-11
	3	10
	6	-19
	9	0
	10	4.1
	12	-11
IC1151	1	0
	2	-11
	3	10
	6	-18
	9	0
	10	4.1
	12	-11
IC1400	1	0
	3	4.6
	5	4.6
	6	4.0
	9	0
	10	0
	14	4.5
	15	4.5
IC1176	1	0
	3	3
	6	3
	7	0
	8	0
	9	0
	11	3
	12	0
	13	0
	14	0

Semiconductor Voltage Table

Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)
Q1100	10.5	10.6	0	Q1229	5	4.9	0
Q1101	0	0	2.2	Q1326	1.2	1.8	4.4
Q1201	0	0.6	0	Q1327	5	4.4	1.7
Q1202	0	0.1	2.1	Q1328	2.6	3.2	8.3
Q1300	0	4.6	0	Q1329	5	8.3	4.5
Q1226	0	0	4.9	Q1601	0	0	5
Q1227	0	0	4.9	Q1602	3.9	3.3	0


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
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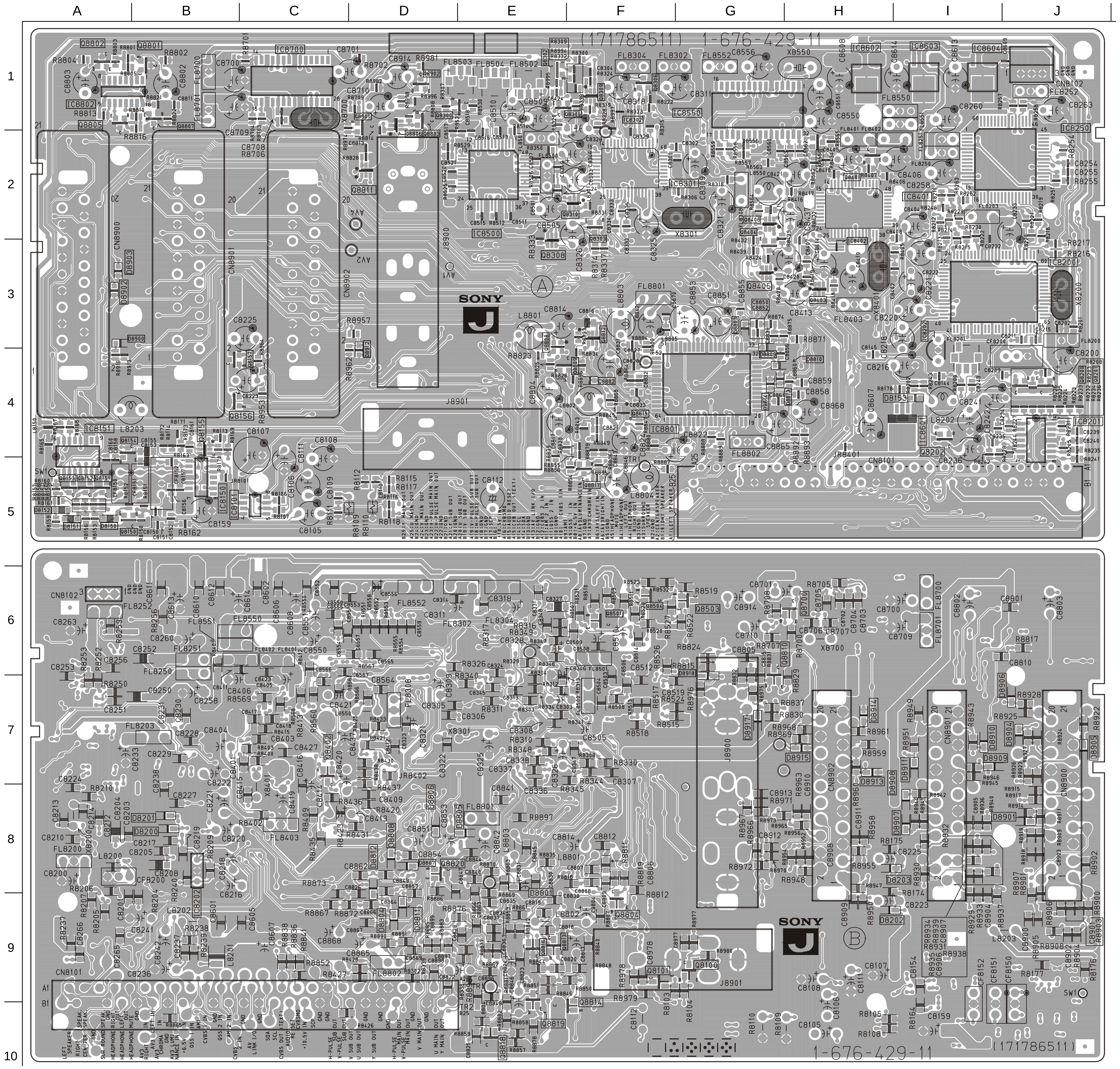
6
7
8
9
10
11
12
13
14
15
1-675-169-12
(1-717-403-12)
TU1350 SUB TUNER
TU1326 MAIN TUNER
AUDIO AMP. CENTER SURROUND OR SUBWOOFER
AUDIO AMP. LEFT
AUDIO AMP. RIGHT
5V REGULATOR
9V REGULATOR
3.3V REGULATOR
RESPONSE LED
SIRCS
STBY 5V
GND
AV3 RIGHT IN
AV3 LEFT IN
AV3 Y IN
AV3 C IN
HP L OUT
HP R OUT
FOR PRODUCTION USE ONLY
SONY
A
B

A [PRINTED WIRING BOARD]



Semiconductor Location Table

IC	
IC8101	B - 5
IC8150	B- 5
IC8151	A - 4
IC8200	J - 3
IC8201	J - 4
IC8202	I - 3
IC8301	F - 2
IC8302	F - 1
IC8401	I - 2
IC8402	H - 2
IC8500	E - 2
IC8550	G - 1
IC8601	I - 4
IC8602	H - 1
IC8603	I - 1
IC8604	I - 1
IC8700	C - 1
IC8801	F - 4

TRANSISTOR	
Q8100	G - 9
Q8101	F - 9
Q8150	A - 5
Q8151	A - 5
Q8152	A - 5
Q8153	A - 5
Q8154	A - 4
Q8156	B - 4
Q8157	C - 4
Q8200	J - 3
Q8201	J - 4
Q8202	I - 4
Q8300	D - 1
Q8302	E - 1
Q8303	F - 2
Q8305	E - 1
Q8306	F - 1
Q8308	E - 3
Q8309	F - 1
Q8310	E - 2
Q8401	H - 2
Q8402	C - 7
Q8403	H - 3
Q8404	G - 2
Q8405	G - 3
Q8406	G - 2
Q8501	F - 6
Q8901	D - 1

DIODE	
D8150	A - 5
D8151	A - 5
D8152	A - 5
D8153	I - 4
D8200	B - 8
D8201	B - 8
D8202	H - 9
D8203	H - 8
D8801	E - 8
D8802	F - 4
D8803	G - 3
D8804	D - 9
D8805	D - 8
D8806	D - 8
D8807	D - 8
D8808	D - 8
D8809	G - 3
D8810	G - 4
D8811	D - 9
D8812	D - 8
D8813	G - 4
D8814	G - 4
D8900	A - 3
D8901	J - 8
D8902	A - 3
D8903	A - 3
D8904	J - 7
D8905	J - 7
D8906	I - 7
D8907	I - 8
D8908	I - 8
D8909	I - 7
D8910	I - 7
D8911	I - 7
D8912	D - 3
D8913	H - 7
D8914	H - 7
D8915	H - 7

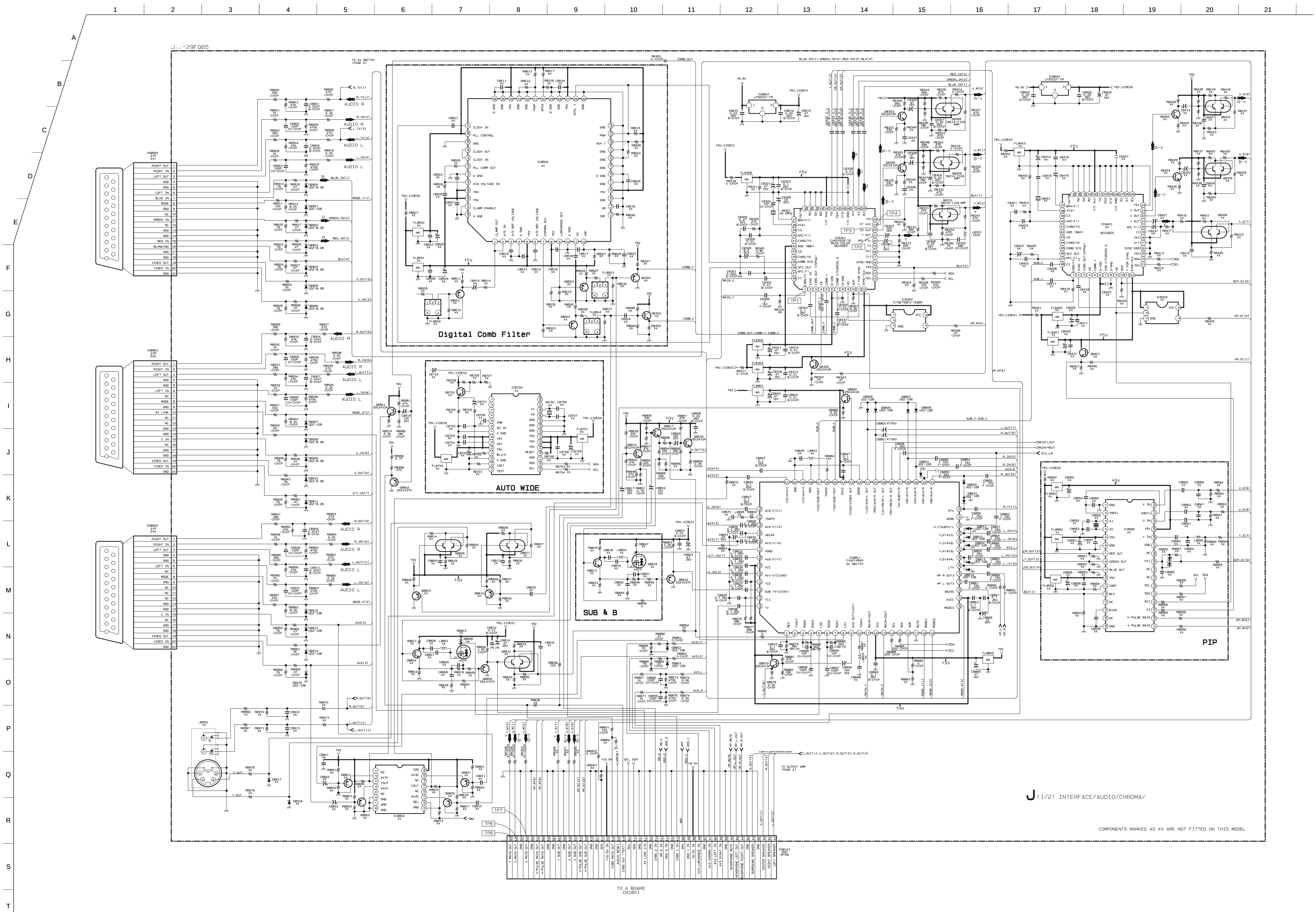
Semiconductor Voltage Table

Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)
Q8150	2.9	3.6	5.0	Q8302	1.0	1.6	9.0
Q8151	0	0.4	4.8	Q8303	1.3	1.9	7.7
Q8152	0	4.6	0	Q8305	1.3	1.9	7.3
Q8153	0	0.4	4.8	Q8306	0.1	0.1	5.0
Q8154	0	4.6	0	Q8401	0.1	0.1	5.0
Q8156	3.9	4.6	9.0	Q8404	1.2	1.9	7.4
Q8157	3.9	4.6	9.0	Q8809	2.7	2.1	0
Q8200	1.9	2.5	5.0	Q8817	3.9	4.6	9.0
Q8201	1.2	1.9	5.0	Q8901	1.9	2.5	9.0
Q8202	5.1	5.8	9.0	**Ref**	**(s)**	**(g)**	**(d)**
Q8300	1.6	1.0	0	Q8815	1.8	0	0.6

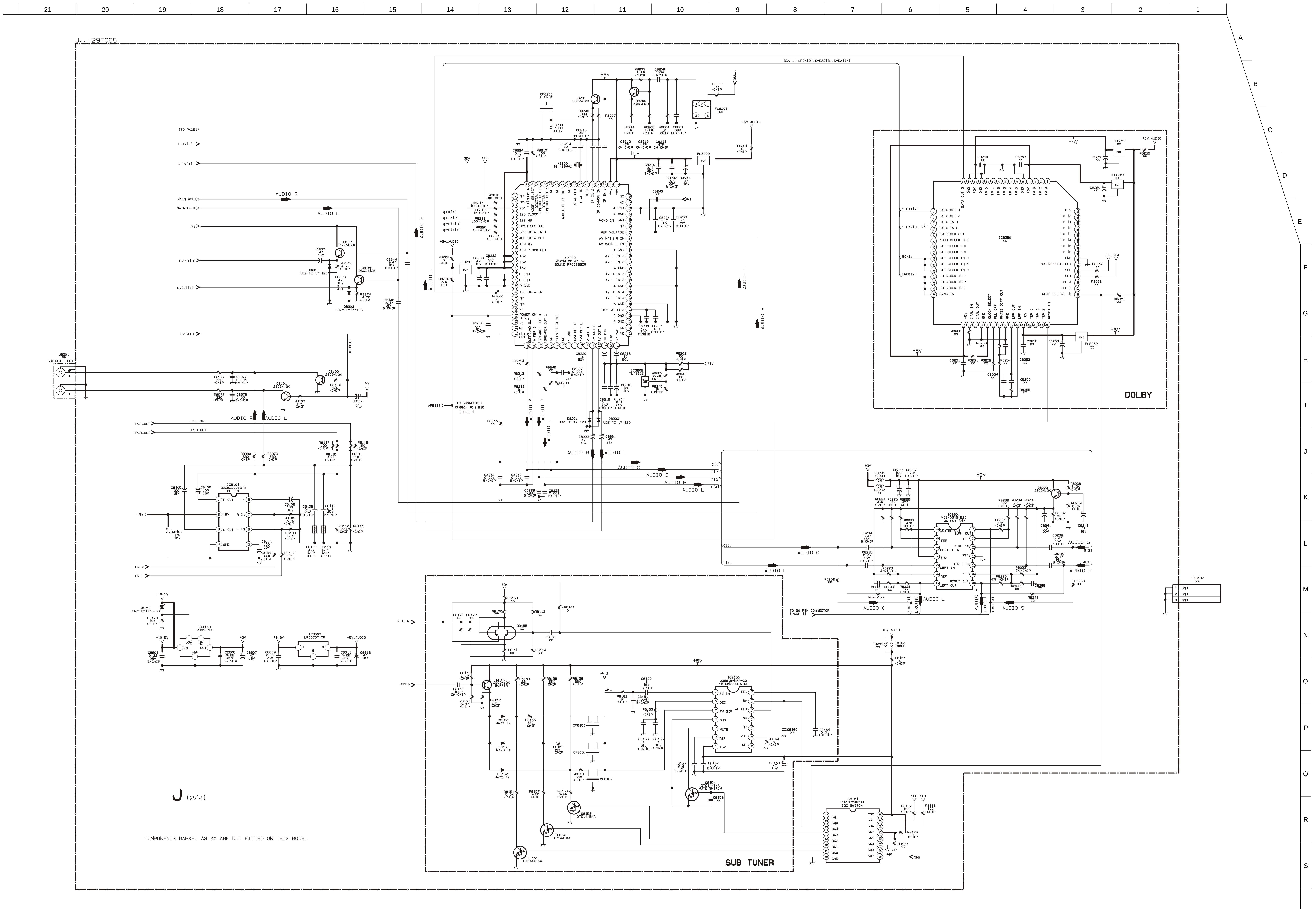
IC Voltage Table

IC Voltage Table					
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC8200	2-3	4.7	IC8500	1-2	1.5
	4-6	2.5		3	0.5
	7	0.6		6	2.6
	17	0.7		7	0.9
	21	5.0		9	1.0
	36	3.8		11	2.8
	37	3.7		12-13	1.8
	38	7.0		14	1.0
	40	7.0		22-23	5.0
	45	3.7		26	5.0
	56-57	3.8		30	5.0
	58	2.6		37	2.4
	60	3.8		40-42	1.9
	67	0.4		44	1.9
	68-69	1.5	IC8101	1	4.2
	71	2.4		3	4.1
	72	2.2		5	0.6
IC8201	1-3	5.0		8	0.5
	5-10	5.0	IC8801	1	1.8
	12-14	5.0		2-4	4.5
IC8301	1	2.4		5	0
	2	1.9		6-7	4.6
	3	1.5		8	0
	4	0.1		9	4.6
	5	2.4		10	3.4
	7	2.6		11	3.8
	9	0.3		13	4.5
	10	0.8		22-30	4.5
	11	2.5		32-41	4.5
	13-14	4.5		43	4.6
	20	2.4		45	3.7
	21	1.8		46	3.5
	22-23	1.9		47	4.5
	24	0.1		49	4.5
	25-27	2.5		51-80	4.5
	29	2.8	IC8151	2	2.4
	37	1.1		3	4.6
	38	4.0		4	4.6
IC8401	1	2.3		5	0.4
	2	1.9		6	4.6
	4	0.1		7	0.4
	9	0.3		9	0
	10	4.0		10	2.6
	11	2.4	IC8150	1	3.0
	20	2.4		2	2.5
	21	1.7		3	1.7
	22-23	1.9		6	4.3
	37	1.1		12	2.4
	38	4.0		13	4.6
	40	3.3		14	2.5
	47	3.8			
	48	1.8			

J **[PRINTED WIRING BOARD]**


J..-29FQ65
Digital Comb Filter
AUTO WIDE
SUB & B
PIP
CN8900
CN8901
CN8902
IC8500
IC8700
IC8801
CXA2149AQ
AV SWITCH
IC8301
CXA2163Q-T6
MAIN COLOR DECODER
IC8401
DECODER
IC8550
IC8802
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TO A BOARD
CN1801
J (1/2) INTERFACE/AUDIO/CHROMA/
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

J [INTERFACE, AUDIO, CHROMA (Page 1/2)]

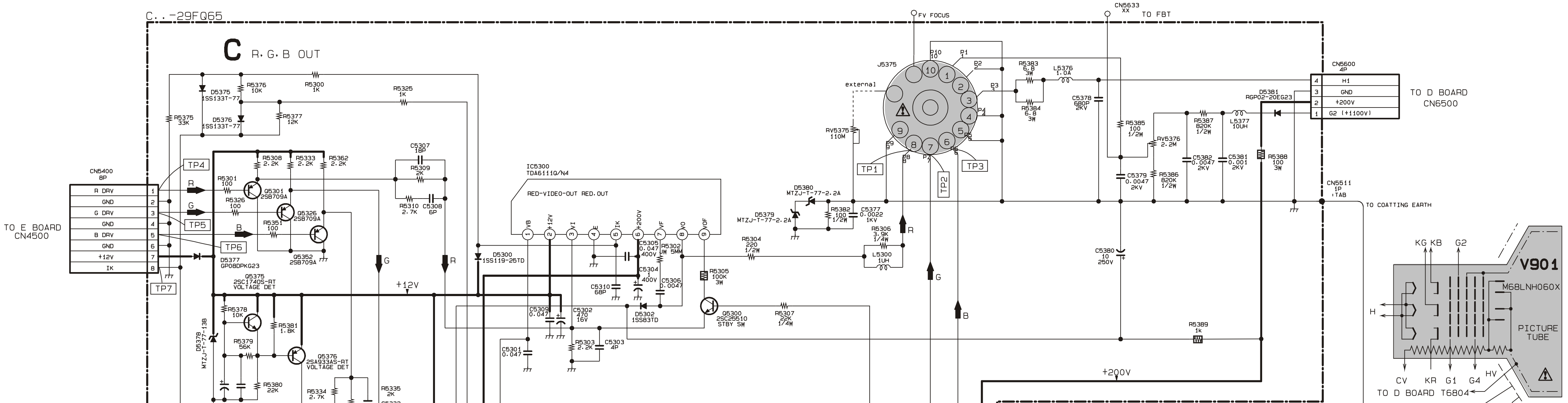

J..-29FQ65
IC8200 MSP3410D-QA-B4 SOUND PROCESSOR
IC8250 XX
DOLBY
IC8101 TDA8820D13TR HP OUT
IC8201 MC3403NS-E20 OUTPUT AMP
IC8150 U2861B-MFP-G3 FM DEMODULATOR
IC8151 CXA1875AM-T4 I2C SWITCH
IC8601 PQ09TZ5U
IC8603 LF50CDT-TR
SUB TUNER
J801 2P VARIABLE OUT
CN8102 XX
AUDIO R
AUDIO L
AUDIO C
AUDIO S
+5V
+9V
+5V_AUDIO
TO CONNECTOR CN8904 PIN B15 SHEET 1
TO 50 PIN CONNECTOR (PAGE 1)
J (2/2)

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

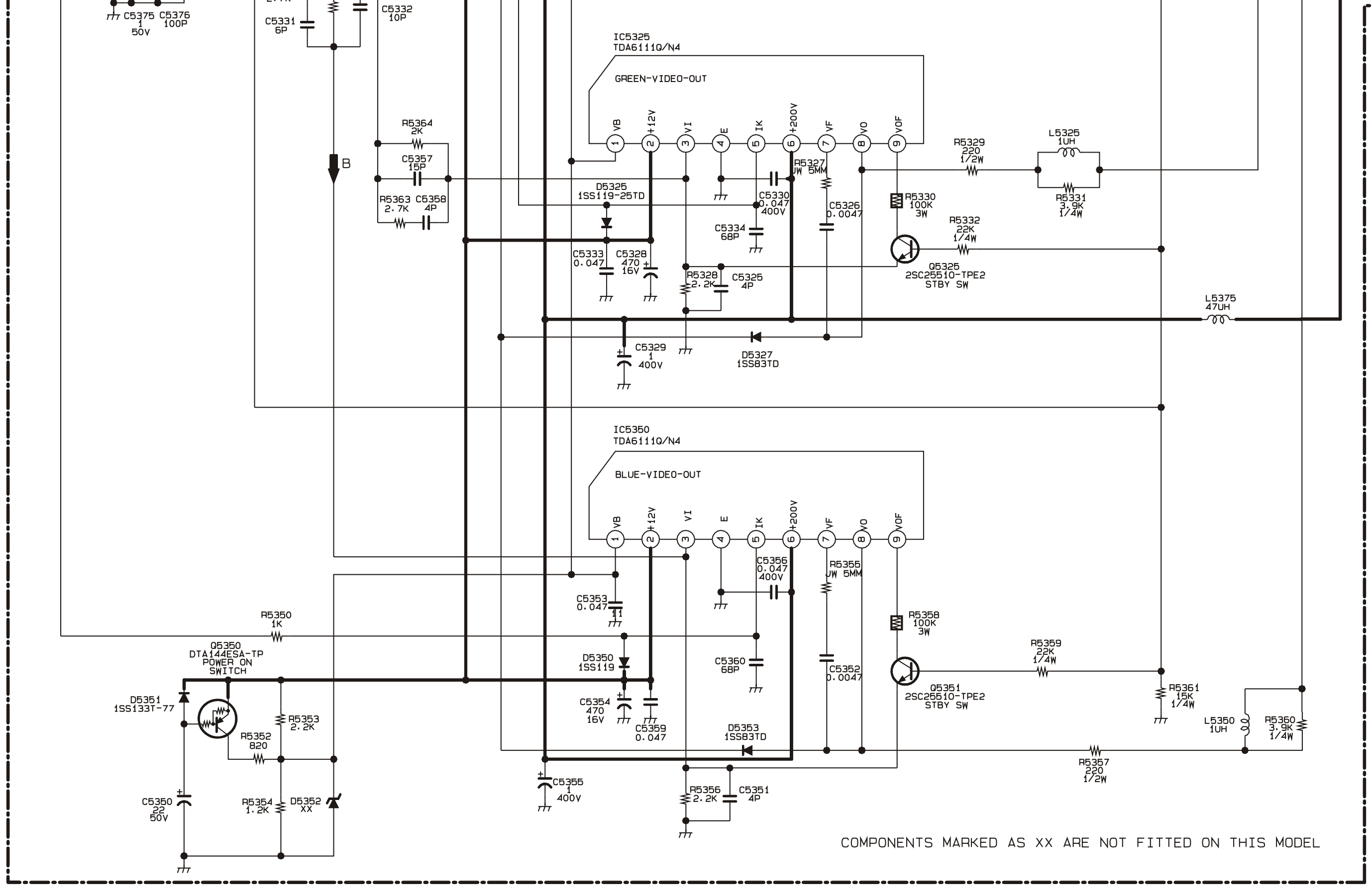
J [INTERFACE, AUDIO, CHROMA (Page 2/2)]

Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)
Q5301	3.5	2.8	0	Q5300	3.7	4.4	3.8
Q5326	3.6	3	0	Q5325	3.7	4.4	3.8
Q5352	3.7	3	0	Q5351	3.8	4.4	3.9
Q5375	10.3	10.9	11	Q5350	11	10.9	3.9
Q5376	11	10.3	10.9				

IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC5300	1	3.9
	3	3.8
	5	8.4
	7	153.0
	8	157.0
	9	152.0
IC5325	1	3.9
	3	3.8
	5	8.7
	7	150.0
	8	155.0
	9	150.0
IC5350	1	3.9
	3	3.8
	5	8.4
	7	150.0
	8	156.0
	9	149.0



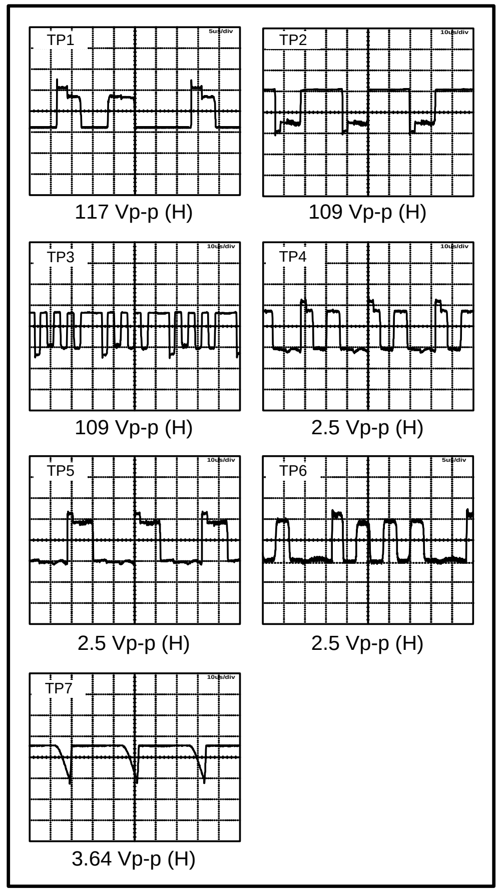
C..-29FQ65
C R.G.B OUT
TO E BOARD CN4500
CN5400 8P
R DRV
GND
G DRV
GND
B DRV
GND
+12V
IK
TP4
TP5
TP6
TP7
IC5300 TDA6111Q/N4
RED-VIDEO-OUT RED.OUT
Q5301 2SB709A
Q5326 2SB709A
Q5352 2SB709A
Q5375 2SC1740S-RT VOLTAGE DET
Q5376 2SA933AS-RT VOLTAGE DET
Q5300 2SC2551O STBY SW
+12V
+200V
FV FOCUS
CN5633 XX
TO FBT
J5375
external
TP1
TP2
TP3
CN5600 4P
H1
GND
+200V
G2 (+1100V)
TO D BOARD CN6500
CN5511 1P TAB
TO COATTING EARTH
V901
M68LNH060X
PICTURE TUBE
KG KB G2
H
CV KR G1 G4 HV
TO D BOARD T6804



IC5325 TDA6111Q/N4
GREEN-VIDEO-OUT
Q5325 2SC2551O-TPE2 STBY SW
IC5350 TDA6111Q/N4
BLUE-VIDEO-OUT
Q5351 2SC2551O-TPE2 STBY SW
Q5350 DTA144ESA-TP POWER ON SWITCH
L5375 47UH

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

C board Waveforms


TP1 117 Vp-p (H)

TP2 109 Vp-p (H)

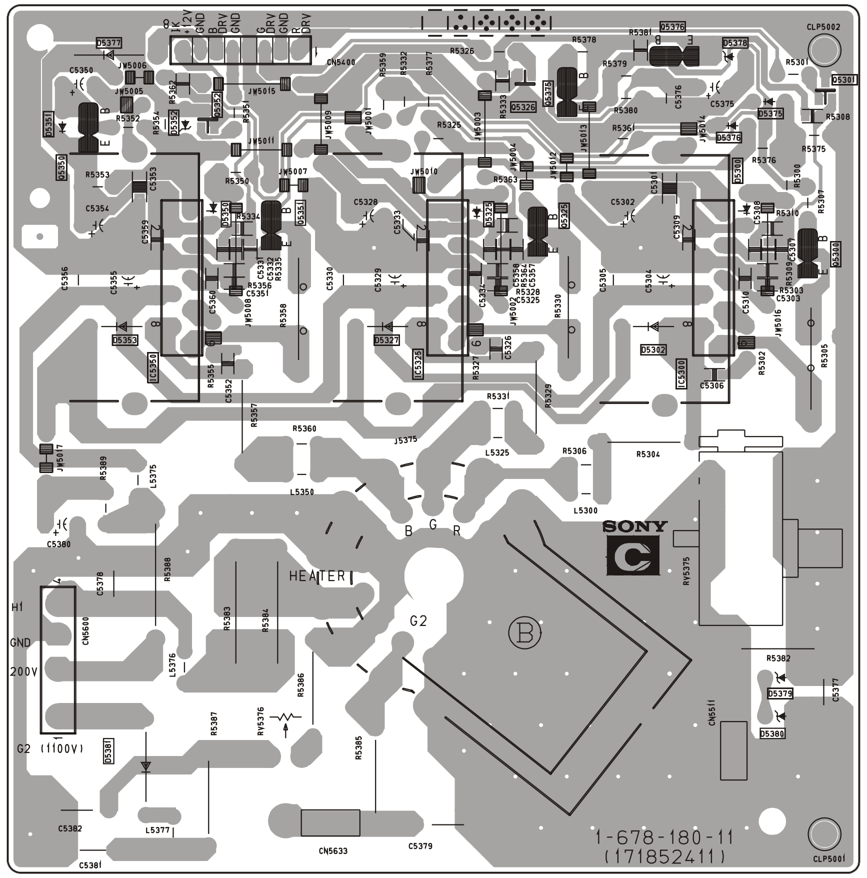
TP3 109 Vp-p (H)

TP4 2.5 Vp-p (H)

TP5 2.5 Vp-p (H)

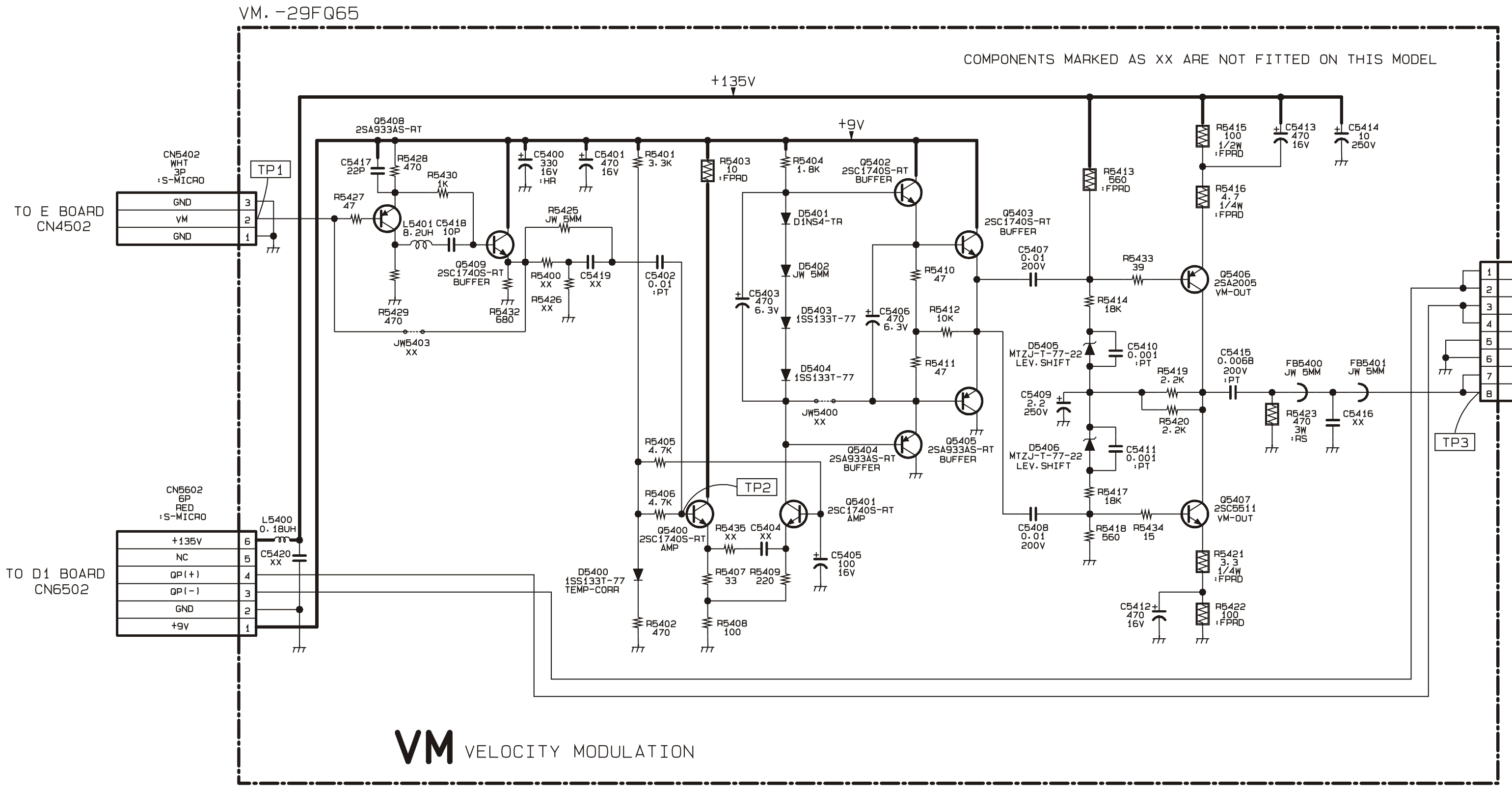
TP6 2.5 Vp-p (H)

TP7 3.64 Vp-p (H)



SONY
C
HEATER
G2
B G R
H1
GND
200V
G2 (1100V)
CN5600
CN5633
CLP5001
CLP5002
1-678-180-11
(171852411)

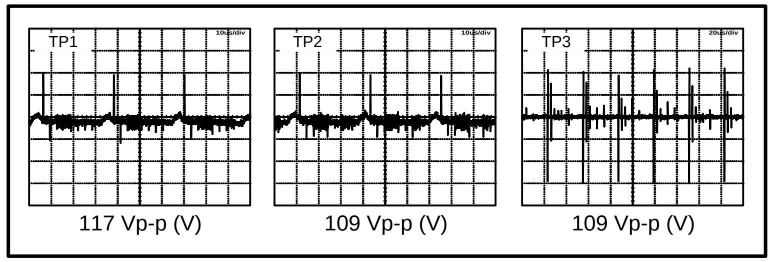
C [PRINTED WIRING BOARD]


VM.-29FQ65
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
+135V
+9V
TO E BOARD CN4502
CN5402 WHT 3P S-MICRO
TP1
TP2
TP3
TO D1 BOARD CN6502
CN5602 6P RED S-MICRO
CN5444 8P BTOB
TO NECK ASSY
Q5408 2SA933AS-RT
Q5409 2SC1740S-RT BUFFER
Q5402 2SC1740S-RT BUFFER
Q5403 2SC1740S-RT BUFFER
Q5404 2SA933AS-RT BUFFER
Q5405 2SA933AS-RT BUFFER
Q5400 2SC1740S-RT AMP
Q5401 2SC1740S-RT AMP
Q5406 2SA2005 VM-OUT
Q5407 2SC5511 VM-OUT
D5400 1SS133T-77 TEMP-CORR
D5405 MTZJ-T-77-22 LEV. SHIFT
D5406 MTZJ-T-77-22 LEV. SHIFT
FB5400 JW 5MM
FB5401 JW 5MM
GND
VM
QP+
QP-
NC
+135V
+9V

VM VELOCITY MODULATION

Ref	(e)	(b)	(c)
Q5400	0.9	1.5	9.0
Q5401	1.0	1.6	5.2
Q5402	6.0	6.6	9.0
Q5403	5.9	6.0	9.0
Q5404	5.2	5.9	0
Q5405	5.9	5.8	0
Q5406	135.1	134.6	68.2
Q5407	0.8	1.4	68.2
Q5408	7.6	6.9	1.4
Q5409	6.9	7.5	9.0

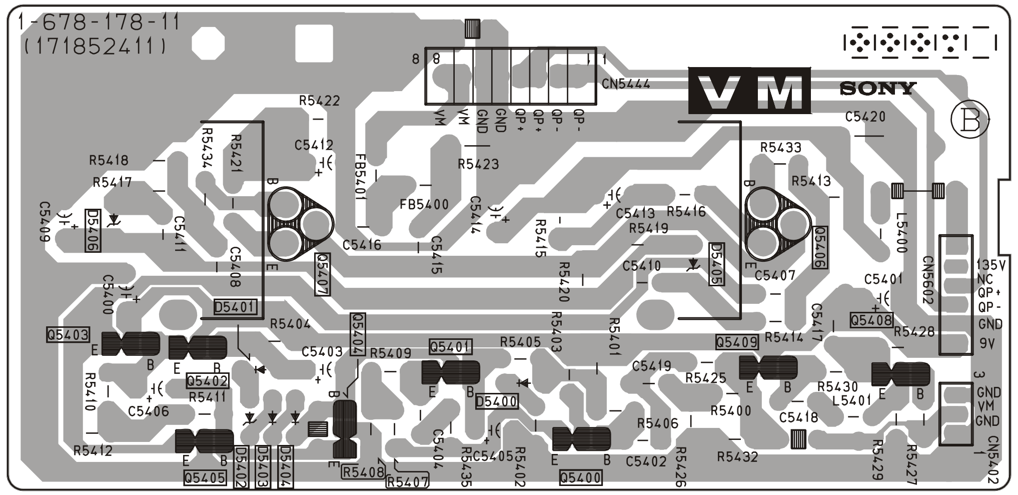
VM board Waveforms



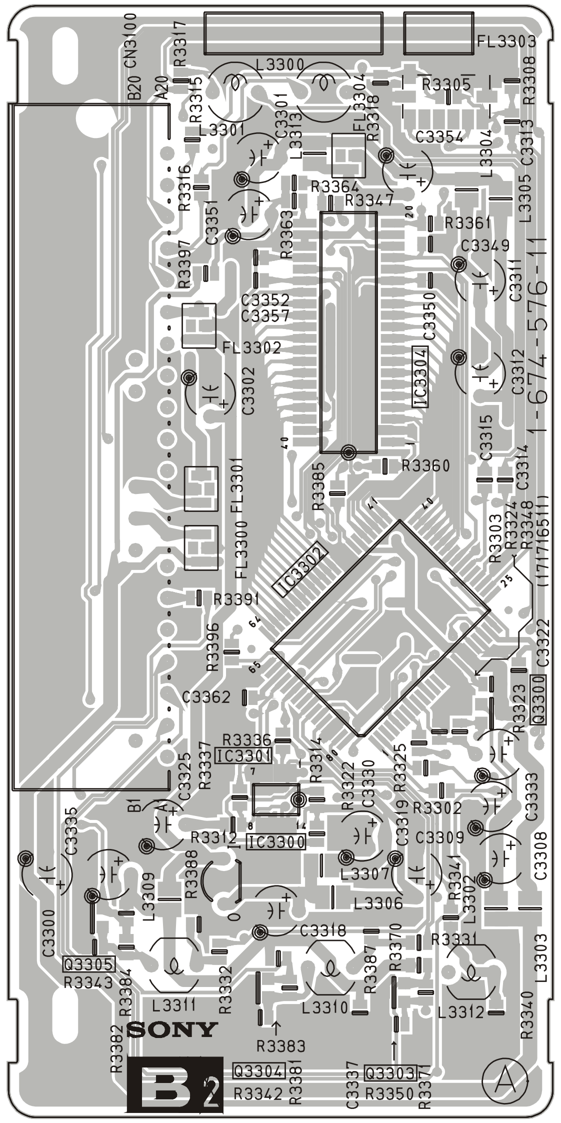
117 Vp-p (V)

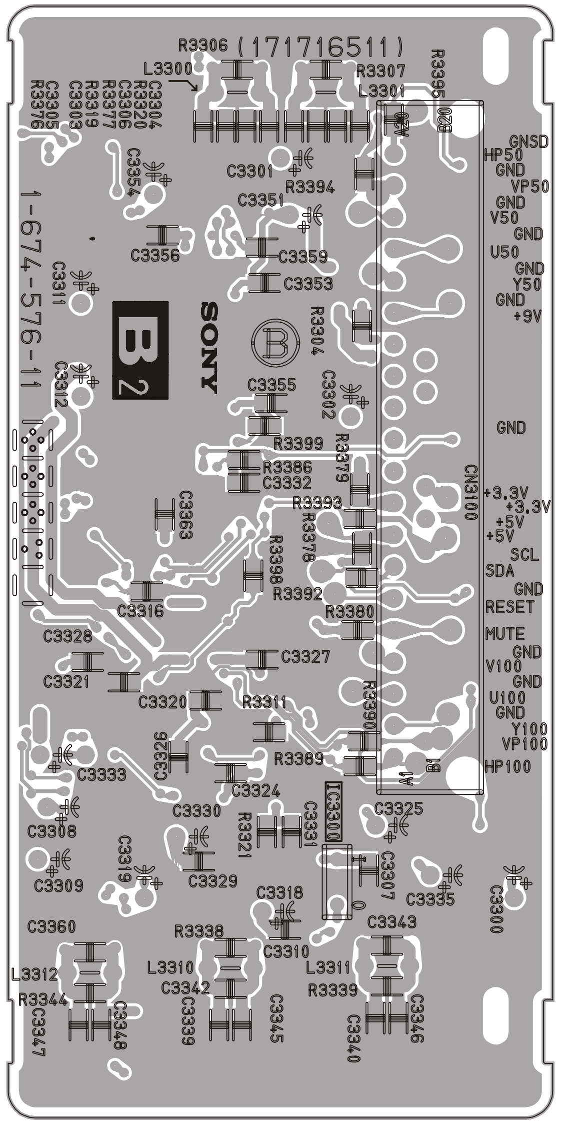
109 Vp-p (V)

109 Vp-p (V)


1-678-178-11
(171852411)
VM
SONY
CN5444
CN5602
CN5402
135V
NC
QP+
QP-
GND
9V
GND
VM
GND

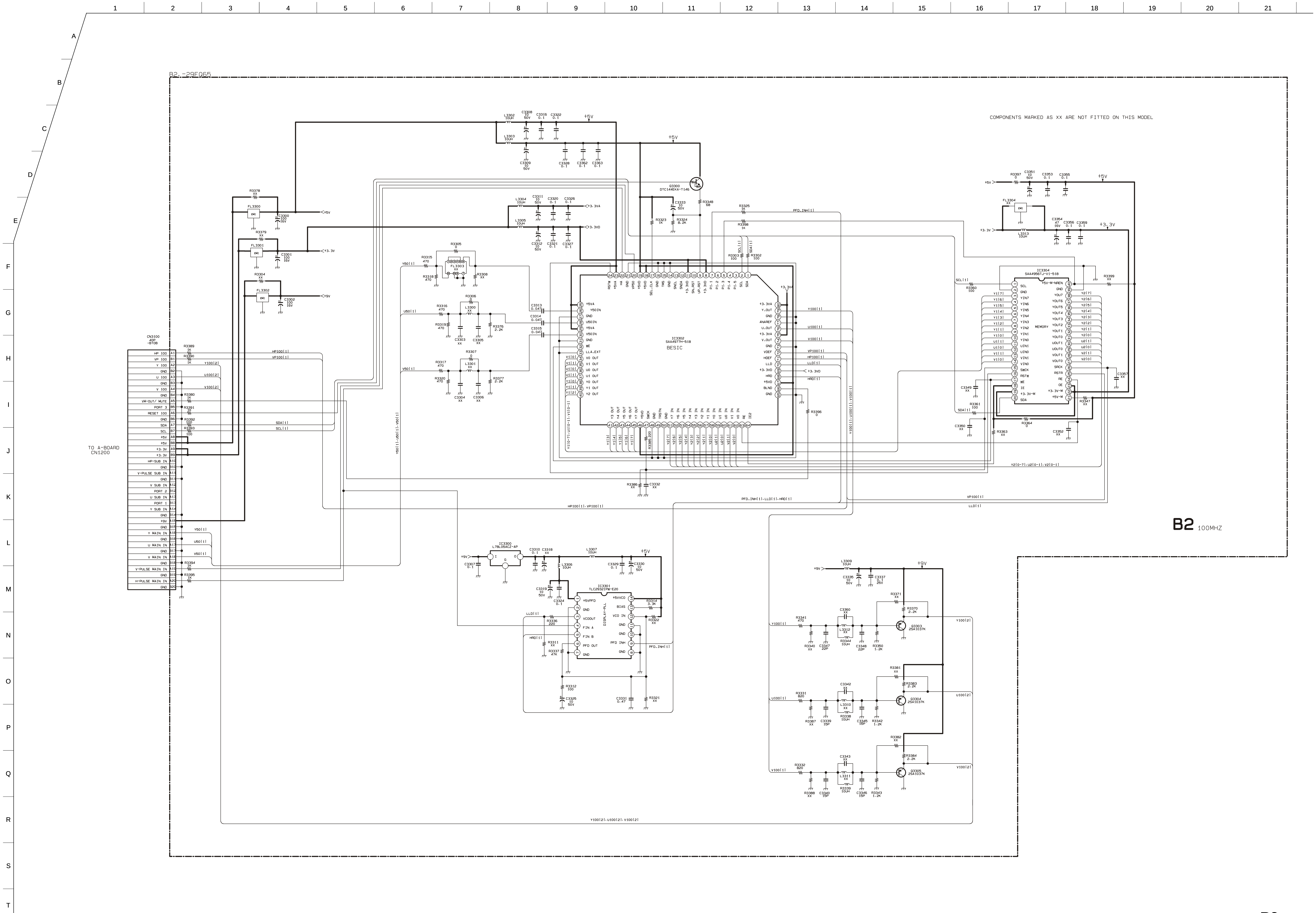
VM [PRINTED WIRING BOARD]


1-674-576-11
(171716511)
SONY
B2
IC3300
IC3301
IC3302
IC3304
FL3300
FL3301
FL3302
FL3303
CN3100


(171716511)
1-674-576-11
B2
SONY
CN3100
GND
HP50
VP50
V50
U50
Y50
+9V
+3.3V
+5V
SCL
SDA
RESET
MUTE
V100
U100
Y100
VP100
HP100

B2 [PRINTED WIRING BOARD [A] SIDE]

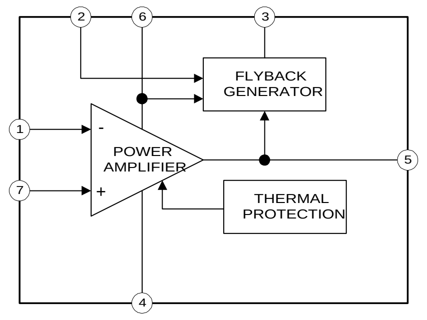
B2 [PRINTED WIRING BOARD [B] SIDE]


B2 -29F065
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
B2 100MHZ
TO A-BOARD CN1200
CN3100 40P :BTOB
HP 100 A1
VP 100 B1
Y 100 A2
GND B2
U 100 A3
GND B3
V 100 A4
GND B4
VM-OUT/ MUTE A5
PORT 3 B5
RESET 100 A6
GND B6
SDA A7
SCL B7
+5V A8
+5V B8
+3.3V A9
+3.3V B9
HP-SUB IN A10
GND B10
V-PULSE SUB IN A11
GND B11
V SUB IN A12
PORT 2 B12
U SUB IN A13
PORT 1 B13
Y SUB IN A14
GND B14
+9V A15
GND B15
Y MAIN IN A16
GND B16
U MAIN IN A17
GND B17
V MAIN IN A18
GND B18
V-PULSE MAIN IN A19
GND B19
H-PULSE MAIN IN A20
GND B20
R3389 1K
R3390 1K
R3380 1K
R3391 1K
R3392 100
R3393 100
R3394 1K
R3395 1K
Y100[2]
U100[2]
V100[2]
HP100[1]
VP100[1]
SDA[1]
SCL[1]
Y50[1]
U50[1]
V50[1]
FL3300
FL3301
FL3302
R3378 XX
R3379 XX
R3304 XX
C3300 100 16V
C3301 100 16V
C3302 100 16V
+5V
+3.3V
+9V
L3302 10UH
L3303 10UH
C3308 10 50V
C3316 0.1
C3322 0.1
C3309 10 50V
C3328 0.1
C3362 0.1
C3363 0.1
L3304 10UH
L3305 10UH
C3311 10 50V
C3320 0.1
C3326 0.1
C3312 10 50V
C3321 0.1
C3327 0.1
+3.3VA
+3.3VD
Q3300 DTC144EKA-T146
C3333 10 50V
R3348 68
R3323 1K
R3324 8.2K
R3325 1K
R3398 1K
R3303 100
R3302 100
PFD_INH[1]
R3305 0
R3315 470
R3318 470
FL3303 XX
R3308 XX
R3306 0
L3300 XX
R3316 470
R3319 470
C3303 XX
C3305 XX
R3376 2.2K
R3307 0
L3301 XX
R3317 470
R3320 470
C3304 XX
C3306 XX
R3377 2.2K
C3313 0.047
C3314 0.047
C3315 0.047
IC3302 SAA4977H-518
BESIC
RSTW
+5VA
HA
GND
VP50
+5VD
SEL_CLK
TMS
SNCL
SNDA
+3.3VD
SN_RST
UP_RST
P1.1
P1.2
P1.3
P1.4
P1.5
SCL
SDA
Y50IN
U50IN
V50IN
WE
LLA_EXT
V0 OUT
V1 OUT
U0 OUT
U1 OUT
Y0 OUT
Y1 OUT
Y2 OUT
+3.3VA
Y_OUT
ANAREF
U_OUT
V_OUT
VDEF
HDEF
LLD
HRD
BLND
Y3 OUT
Y4 OUT
Y5 OUT
Y6 OUT
Y7 OUT
SWCK
TRSTN
Y7 IN
Y6 IN
Y5 IN
Y4 IN
Y3 IN
Y2 IN
Y1 IN
Y0 IN
U1 IN
U0 IN
V1 IN
V0 IN
RE
IE2
R3385 220
R3396 0
R3386 XX
C3332 XX
Y1[0-7].U1[0-1].V1[0-1]
Y50[1].U50[1].V50[1]
Y100[1].U100[1].V100[1]
HP100[1].VP100[1]
PFD_INH[1].LLD[1].HRD[1]
VP100[1]
LLD[1]
HRD[1]
R3397 0
C3351 10 50V
C3353 0.1
C3355 0.1
FL3304 XX
L3313 10UH
C3354 47 16V
C3356 0.1
C3359 0.1
IC3304 SAA4956TJ-V1-518
MEMORY
SCL
GND
YIN7
YIN6
YIN5
YIN4
YIN3
YIN2
YIN1
YIN0
UIN1
UIN0
VIN1
VIN0
SWCK
RSTW
WE
IE
+3.3V-M
SDA
+5V-M-NREN
YOU7
YOUT6
YOUT5
YOUT4
YOUT3
YOUT2
YOUT1
YOUT0
UOUT1
UOUT0
VOUT1
VOUT0
SRCK
RSTR
RE
OE
+5V-M
R3360 100
R3361 100
R3399 XX
C3357 XX
C3349 XX
C3350 XX
R3363 XX
R3364 0
C3352 XX
R3347 XX
Y2[0-7].U2[0-1].V2[0-1]
IC3300 L78L05ACZ-AP
I
G
O
C3307 0.1
C3310 0.1
C3318 XX
L3306 10UH
L3307 10UH
C3329 0.1
C3330 10 50V
C3319 10 50V
C3324 0.1
IC3301 TLC2932IPW-E20
DISPLAY-PLL
+5VPFD
VCOOUT
FIN A
FIN B
PFD OUT
+5VVCO
BIAS
VCO IN
PFD INH
R3314 3.3K
R3322 XX
R3336 220
R3311 XX
R3337 47K
R3312 100
C3325 10 50V
C3331 0.47
R3321 XX
L3309 10UH
C3335 10 50V
C3337 0.1 25V
R3371 XX
R3370 2.2K
C3360 XX
R3341 470
L3312 XX
R3344 10UH
R3340 XX
C3347 22P
C3348 22P
R3350 1.2K
Q3303 2SA1037K
R3381 XX
R3383 2.2K
C3342 XX
R3331 820
L3310 XX
R3338 10UH
R3387 XX
C3339 15P
C3345 15P
R3342 1.2K
Q3304 2SA1037K
R3382 XX
R3384 2.2K
C3343 XX
R3332 820
L3311 XX
R3339 10UH
R3388 XX
C3340 15P
C3346 15P
R3343 1.2K
Q3305 2SA1037K
Y100[1]
U100[1]
V100[1]
Y100[2].U100[2].V100[2]

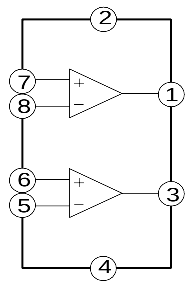
B2 [100Hz]

5-5. IC BLOCK DIAGRAMS

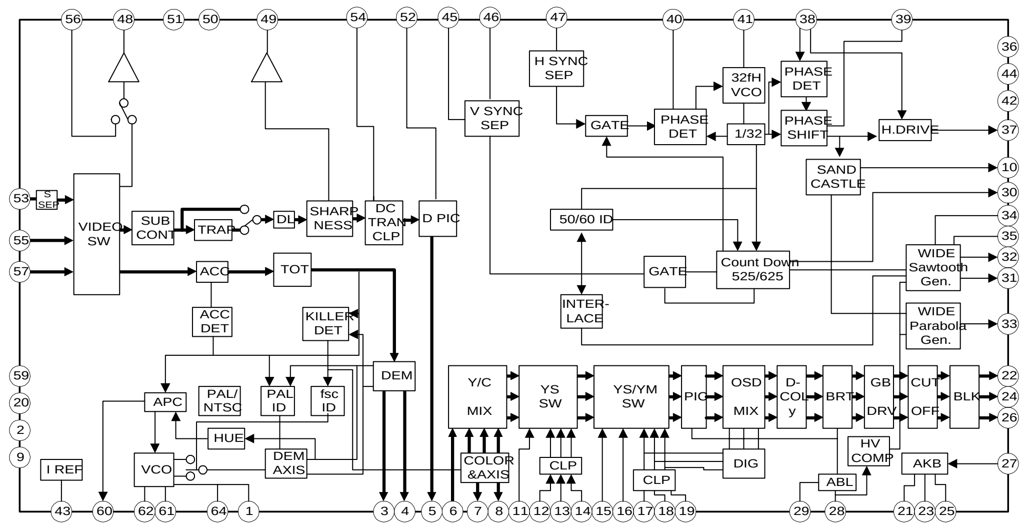
D BOARD IC6700 STV 9379


FLYBACK GENERATOR
POWER AMPLIFIER
THERMAL PROTECTION
1
2
3
4
5
6
7

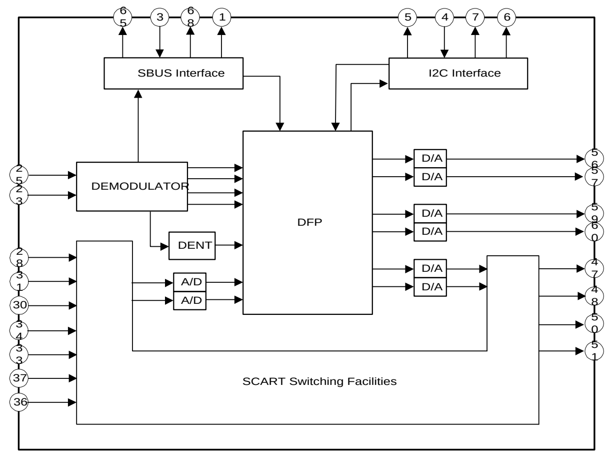
J BOARD IC8101 TDA2822D



E BOARD IC4301 CXA2100Q-TL

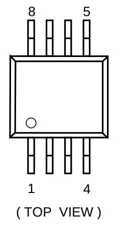

H SYNC SEP
V SYNC SEP
32fH VCO
PHASE DET
PHASE SHIFT
GATE
1/32
H.DRIVE
SAND CASTLE
VIDEO SW
SUB CONT
TRAP
DL
SHARP NESS
DC TRAN CLP
D PIC
50/60 ID
INTER-LACE
Count Down 525/625
WIDE Sawtooth Gen.
WIDE Parabola Gen.
ACC
TOT
ACC DET
KILLER DET
DEM
APC
PAL/NTSC
PAL ID
fsc ID
HUE
DEM AXIS
VCO
I REF
Y/C MIX
YS SW
YS/YM SW
PIC
OSD MIX
D-COL y
BRT
GB DRV
CUT OFF
BLK
COLOR &AXIS
CLP
DIG
HV COMP
ABL
AKB

J BOARD IC8200 MSP3410D-QA-B4

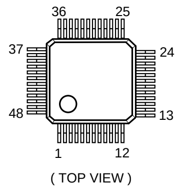

S8US Interface
I2C Interface
DEMODULATOR
DFP
DENT
A/D
A/D
D/A
D/A
D/A
D/A
D/A
D/A
SCART Switching Facilities

5-4 SEMICONDUCTORS

BA7046F
BA7046F-T1
LM393PS-E20
MB3793-42NF
MB3793-42NF-ER
NJM2240M
NJM2240M(TE2)
NJM3404AD


8
5
1
4
(TOP VIEW)

CXA1855Q-T6


36
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37
24
48
13
1
12
(TOP VIEW)

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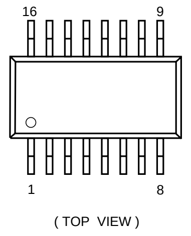
16
9
1
8
(TOP VIEW)

CXD2053S
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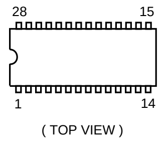
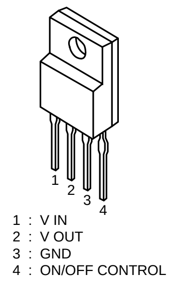
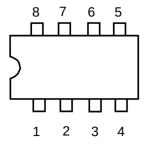

28
15
1
14
(TOP VIEW)

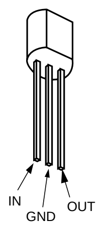
KA78R05TU
KA78R09TU
KA78R33TU


1
2
3
4
1 : V IN
2 : V OUT
3 : GND
4 : ON/OFF CONTROL

CAD005AD
LM358
LM393N
M5216P
M24C32-BN6
ST24C16FB6
TDA2822M
UPC393C



LM78L05ACZ
LM78L12ACZ
L78L05ACZ-AP
L78L12ACZ-AP



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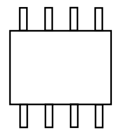
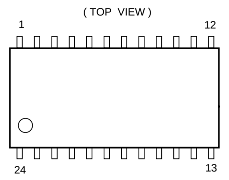


MB88141PF-ER


(TOP VIEW)
1
12
24
13

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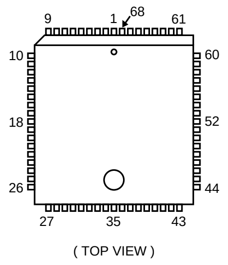
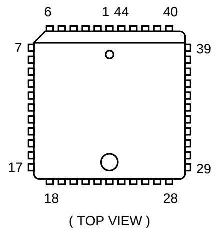
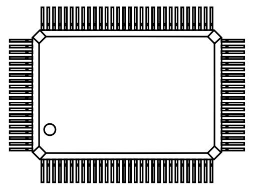
SDA5275


9
1
68
61
10
60
18
52
26
44
27
35
43
(TOP VIEW)

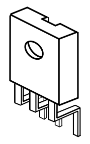
M27C800-100K1


6
1
44
40
7
39
17
29
18
28
(TOP VIEW)

MSM65355GS
SAB-C161R1-LM



SBX1981-51



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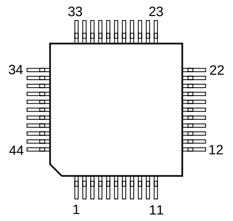
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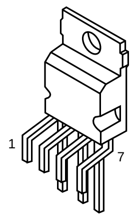
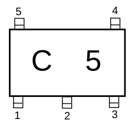
44
12
1
11

STV9379



TC4S69F



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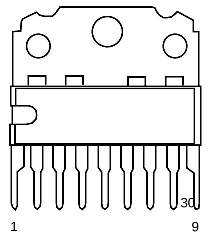
TDA6111Q/N4



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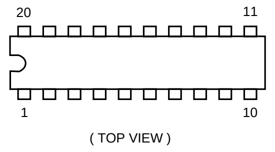
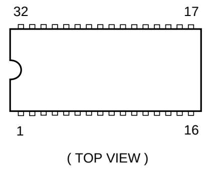
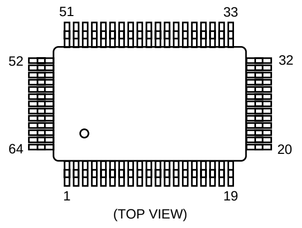

20
11
1
10
(TOP VIEW)

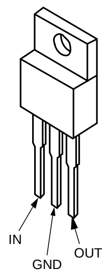
SDA9288X-B121
TDA9143/N2
TDA9144/N2
TDA9170T
MSM534031E3Y-Z


32
17
1
16
(TOP VIEW)

TDA9320H-N1-518


51
33
52
32
64
20
1
19
(TOP VIEW)

TEA6422DT
LM393N



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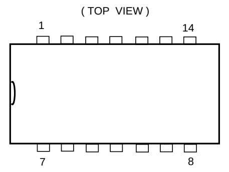
(TOP VIEW)
1
14
7
8

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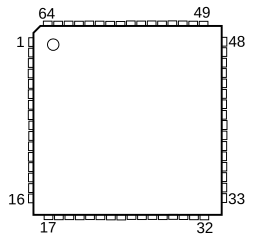
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49
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16
33
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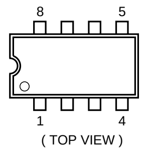
32

TOP209P


8
5
1
4
(TOP VIEW)

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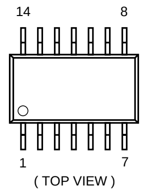
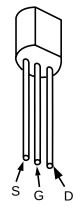
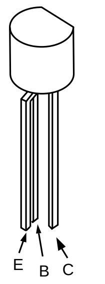
74LVC08D


14
8
1
7
(TOP VIEW)

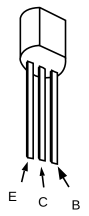
BC546B
BC556B



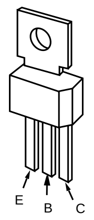
BF199
BF199-AMMO



BF421-AMMO



BF87-127



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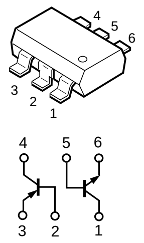
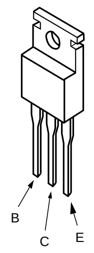


IRF614
IRF620



DTA144EK
DTA144EK-T146
DTC114EK
DTC114YKA-T146
DTC123EK
DTC123EK-T146
DTC124EKA-T146

DTC144EK
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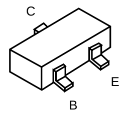
2SA1162-G
2SC2412K-QR
2SC2412K-T-146-R



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DTC114ESA-TP
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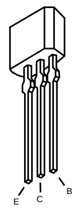

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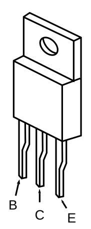

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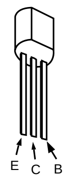
2SC2551-O
2SC2551O-TPE2



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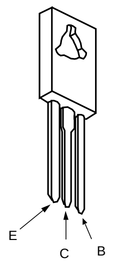
2SC3840K



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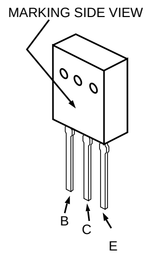
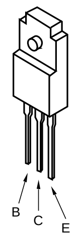

MARKING SIDE VIEW
B
C
E

2SC4793



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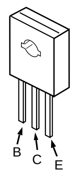
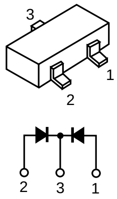


DAN202K
DAN202K-T-146



DAP202K
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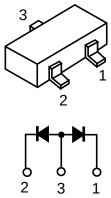

DA204K
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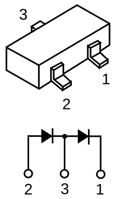

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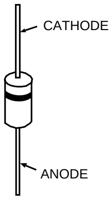
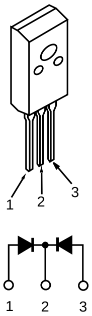
D1NL20U-TR	RGP10GPKG23
D1NS4-TR	RGP15GPKG23
EGP20G	S2LA20F
EL1Z	1SS133T-77
GP08D	1SS83
GP08DPKG23	1SS83TD
R2K-V1	


CATHODE
ANODE

D10SC4M-F
D10SC6M



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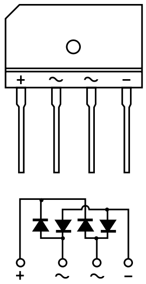
D4SB60L-F
RBA-402L



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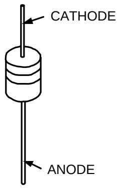
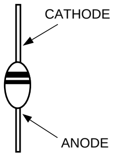
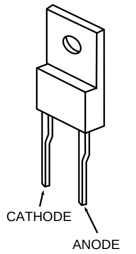
ERA82-004TP1	MTZJ-T-77-12
GP08DPKG23	MTZJ-T-77-22
MTZJ-T-77-12	MTZJ-T-77-18B
MTZJ-T-77-15	MTZJ-33C
MTZJ-T-77-2.2A	RD5.6ESB2
MTZJ-T-77-3-3B	RD9.1ESB2
MTZJ-T-77-3.6A	PGKE200AG23
MTZJ-T-77-4.7B	1SS119-25
MTZJ-T-77-5.6B	1SS119-25TD
MTZJ-T-77-6.8	
MTZJ-T-77-7.5B	


CATHODE
ANODE

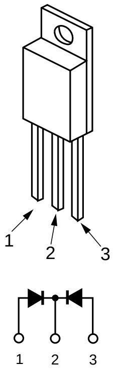
ERC04-06SE


CATHODE
ANODE

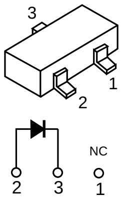
ERD08M-15


CATHODE
ANODE

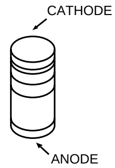
ESAC39M-06C
ESAC39M-06CF38



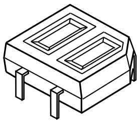
MA3033-L
MA3033L-TX
MA3056M-TX
MA3062M-TX
MA3030-H-(TX)



MA3051L-TX


CATHODE
ANODE

MA73-TX



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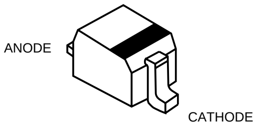
RD12SB2
UDZ-TE-17-3.9B
UDZ-TE-17-4.7B
UDZ-TE-17-6.2B
UDZ-TE-17-6.8B
UDZ-TE-12B


ANODE
CATHODE

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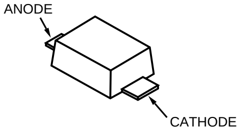

ANODE
CATHODE

SECTION 6
EXPLODED VIEWS

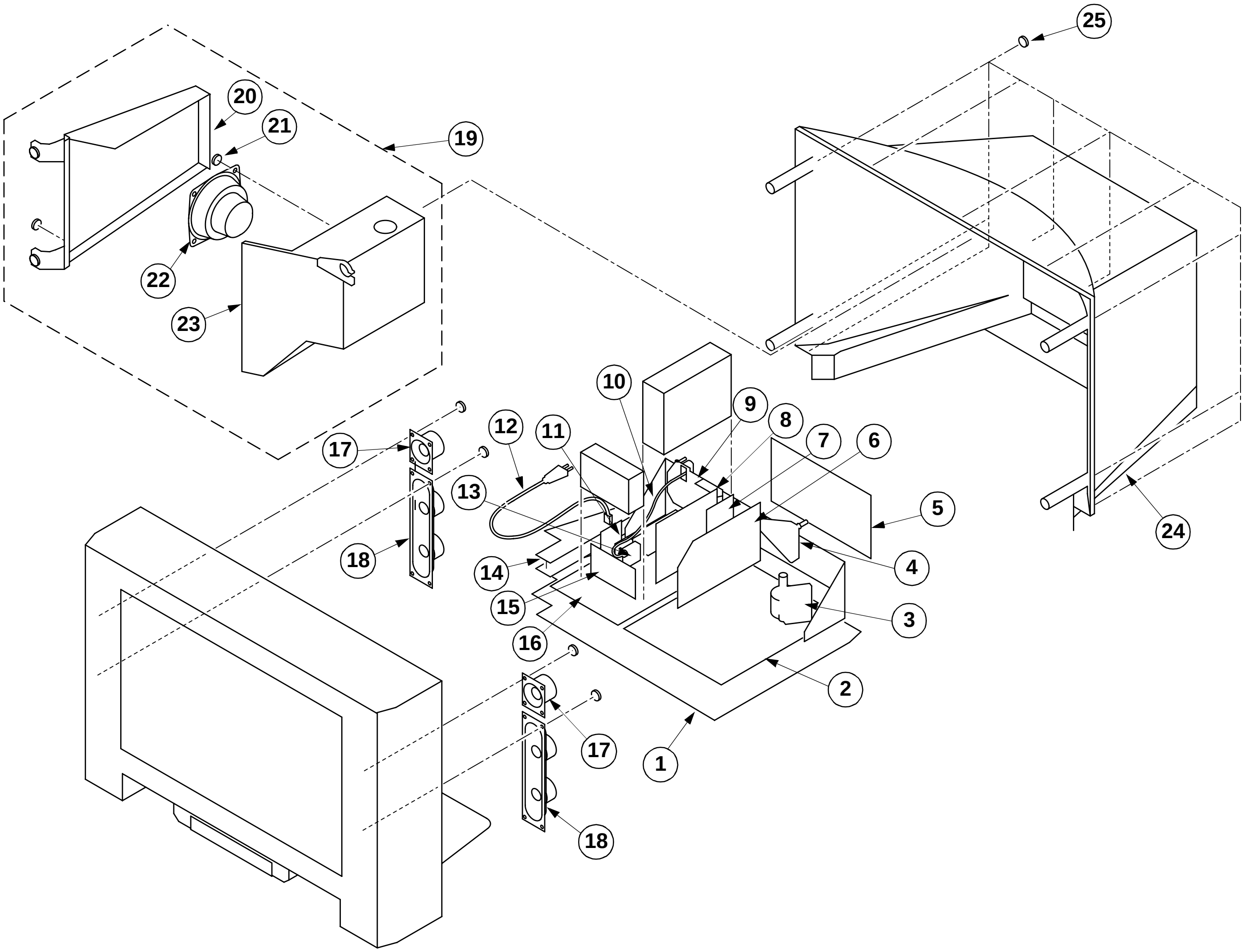
Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

NOTE :

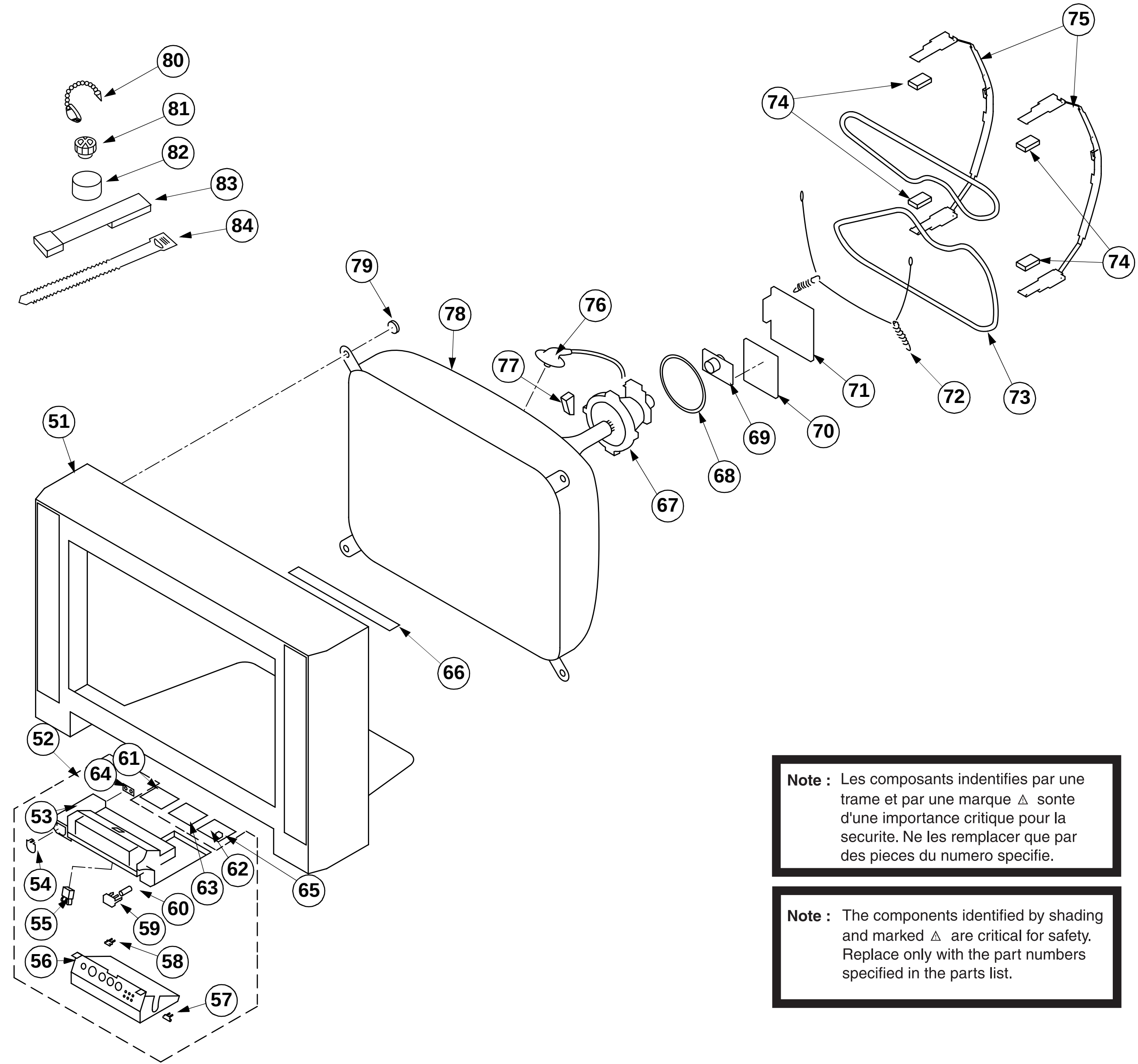
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

6-1. CHASSIS



REF. NO.	PART.NO	DESCRIPTION	REMARK
1	*4-205-196-31	MAIN BRACKET (AE-5)	
2	*A-1640-398-A	D BOARD, COMPLETE	
3	⚠ 1-453-340-11	TRANSFORMER ASSY, FLYBACK (NX4522//U214)	
4	*4-204-476-04	BRACKET, J1	
5	*A-1651-137-A	J BOARD, COMPLETE	
6	*A-1640-380-A	D1 BOARD, COMPLETE	
7	*A-1640-381-A	E BOARD, COMPLETE	
8	*A-1620-132-A	B2 BOARD, COMPLETE	
9	*4-204-477-04	BRACKET, J2	
10	1-790-082-11	CABLE, RF	
11	*1-555-716-51	CABLE, PIN	
12	⚠ 1-690-270-21	CORD, POWER (WITH CONNECTOR)	
13	1-693-339-11	TUNER/VIF(FR) (KV-29FQ65B)	
	1-693-338-11	TUNER/VIF(AEP) (KV-29FQ65E/29FQ65K)	
14	*A-1624-086-A	F1 BOARD, COMPLETE	
15	*A-1634-057-A	M1 BOARD, COMPLETE	
16	*A-1631-115-A	A BOARD, COMPLETE (KV-29FQ65B)	
	*A-1631-114-A	A BOARD, COMPLETE (KV-29FQ65E/29FQ65K)	
17	1-542-437-11	SPEAKER (2CM)	
18	1-542-436-11	SPEAKER (24X4CM)	
19	*A-1678-191-A	WOOFER ASSY (SP)	20-23
20	4-204-775-01	BAFFLE, WOOFER	
21	7-685-663-71	SCREW + BVTP 4X16 TYPE IT-3	
22	1-529-417-11	SPEAKER (8CM)	
23	4-204-776-01	BOX, WOOFER	
24	4-205-448-01	COVER, REAR	
25	7-685-663-79	SCREW + BVTP 4X16 TYPE 2 IT-3	

6-2. PICTURE TUBE



Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
51	X-4200-603-2	BEZNET ASSY		64	4-205-464-01	GUIDE, LIGHT	
52	A-1610-073-A	FRONT CONTROL ASSY	53-64	65	⚠ 1-571-433-31	SWITCH, PUSH (AC POWER)	
53	*4-205-460-01	BRACKET, CONTROL		66	4-204-666-01	SHEET, BLOTTING	
54	4-205-463-01	WINDOW, ORNAMENTAL		67	⚠ 8-451-504-31	DEFLECTION YOKE (Y29RSC-S)	
55	4-047-464-01	CATCHER, PUSH		68	1-452-896-11	COIL, NA ROTATION (RT200)	
56	*4-205-732-11	DOOR PAINTED		69	⚠ 8-453-011-11	NECK ASSY, (NA299-M)	
57	3-022-410-01	DAMPER		70	*A-1644-108-A	VM BOARD, COMPLETE	
58	3-703-035-11	SHAFT, LID		71	*A-1638-139-A	C BOARD, COMPLETE	
59	4-205-462-01	BUTTON, POWER		72	4-369-318-21	SPRING, TENSION	
60	4-204-426-01	SPRING		73	⚠ 1-416-654-11	COIL, DEMAGNETIC	
61	*A-1646-211-A	H6 BOARD, COMPLETE		74	4-203-390-11	CUSHION, DGC	
62	*A-1624-085-A	F3 BOARD, COMPLETE		75	4-204-768-01	HOLDER, DGC (29″)	
63	*A-1646-210-A	H5 BOARD, COMPLETE		76	⚠ 1-251-807-22	CAP ASSY, HIGH-VOLTAGE	

REF. NO.	PART.NO	DESCRIPTION	REMARK
77	3-704-495-01	SPACER, DY	
78 ⚠	8-735-053-05	PICTURE TUBE (M68LNH060X)	
79	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER	
80	4-308-870-00	CLIP, LEAD WIRE	
81	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
82	1-452-032-00	MAGNET, DISK; 10MM	
83	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
84	3-701-007-00	BAND, BINDING	

SECTION 7
ELECTRICAL PARTS LIST

PARTS LISTING TABLE OF CONTENTS

Page

F3 BOARD COMPLETE Parts List : 96

H5 BOARD COMPLETE Parts List : 96

H6 BOARD COMPLETE Parts List : 96

B2 BOARD COMPLETE Parts List : 96

F1 BOARD COMPLETE Parts List : 98

A BOARD COMMON Parts List : Parts common to all models listed in this manual 98

A BOARD VARIANT Parts List : Parts that belong only to the model specified

Model

KV-29FQ65B, KV-29FQ65E, KV-29FQ65K, ... 100

M1 BOARD COMPLETE Parts List : 100

C BOARD COMPLETE Parts List : 103

D1 BOARD COMPLETE Parts List : 104

E BOARD COMPLETE Parts List : 109

D BOARD COMPLETE Parts List : 110

J BOARD COMPLETE Parts List : 115

VM BOARD COMPLETE Parts List : 121

MISCELLANEOUS : 122

ACCESSORIES AND PACKAGING MATERIALS : 122

Note : Refer to the designated variant parts list when seeking a part indicated by an asterisk (*)

F3 H5 H6 B2

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

*A-1624-085-A F3 Board, Complete

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN7700	⚠ *1-695-292-11	PIN, CONNECTOR (POWER)	
CN7733	⚠ *1-580-844-11	PIN, CONNECTOR (POWER)	

< SWITCH >

REF. NO.	PART.NO	DESCRIPTION	REMARK
S7751	⚠ 1-571-433-31	SWITCH, PUSH (AC POWER)	

*A-1646-210-A H5 Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C7900	1-101-810-00	CERAMIC 100PF 5.00% 500V	
C7901	1-101-810-00	CERAMIC 100PF 5.00% 500V	
C7925	1-137-372-11	MYLAR 0.022UF 5.00% 50V	
C7926	1-137-372-11	MYLAR 0.022UF 5.00% 50V	

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN7102	*1-564-518-11	PLUG, CONNECTOR 3P	
CN7103	*1-564-526-11	PLUG, CONNECTOR 11P	

< SOCKET >

REF. NO.	PART.NO	DESCRIPTION	REMARK
J7900	1-794-442-11	TERMINAL BLOCK (LIGHT ANGLE),S	
J7925	1-785-448-11	JACK	

< COIL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
L7925	1-414-183-41	INDUCTOR 10UH	
L7926	1-414-183-41	INDUCTOR 10UH	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R7100	1-249-425-11	CARBON 4.7K 5% 1/4W	
R7101	1-249-429-11	CARBON 10K 5% 1/4W	
R7102	1-249-421-11	CARBON 2.2K 5% 1/4W	
R7103	1-249-429-11	CARBON 10K 5% 1/4W	
R7104	1-249-425-11	CARBON 4.7K 5% 1/4W	
R7105	1-249-421-11	CARBON 2.2K 5% 1/4W	
R7900	1-535-143-61	LEAD, JUMPER (5.00MM)	
R7901	1-249-417-11	CARBON 1K 5% 1/4W	
R7902	1-247-895-91	CARBON 470K 5% 1/4W	
R7903	1-247-895-91	CARBON 470K 5% 1/4W	
R7904	1-535-143-61	LEAD, JUMPER (5.00MM)	
R7905	1-249-417-11	CARBON 1K 5% 1/4W	
R7906	1-535-143-61	LEAD, JUMPER (5.00MM)	

< SWITCH >

REF. NO.	PART.NO	DESCRIPTION	REMARK
S7100	1-771-947-11	SWITCH, TACTILE	
S7101	1-771-947-11	SWITCH, TACTILE	
S7102	1-771-947-11	SWITCH, TACTILE	

*A-1646-211-A H6 Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C7150	1-126-969-11	ELECT 220UF 20.00% 50V	

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN7100	*1-564-519-11	PLUG, CONNECTOR 4P	

< DIODE >

REF. NO.	PART.NO	DESCRIPTION	REMARK
D7150	8-719-080-92	DIODE SLA-570LT3F	

< IC >

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC7150	8-749-014-59	IC TSOP1740KS1	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R7150	1-249-409-11	CARBON 220 5% 1/4W	
R7151	1-249-411-11	CARBON 330 5% 1/4W	

*A-1620-132-A B2 Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C3300	1-126-933-11	ELECT 100UF 20.00% 16V	
C3301	1-126-933-11	ELECT 100UF 20.00% 16V	
C3302	1-126-933-11	ELECT 100UF 20.00% 16V	
C3307	1-164-004-11	CERAMIC CHIP 0.1UF 10.00% 25V	
C3308	1-126-964-11	ELECT 10UF 20.00% 50V	
C3309	1-126-964-11	ELECT 10UF 20.00% 50V	
C3310	1-164-004-11	CERAMIC CHIP 0.1UF 10.00% 25V	
C3311	1-126-964-11	ELECT 10UF 20.00% 50V	
C3312	1-126-964-11	ELECT 10UF 20.00% 50V	
C3313	1-163-809-11	CERAMIC CHIP 0.047UF 10.00% 25V	
C3314	1-163-809-11	CERAMIC CHIP 0.047UF 10.00% 25V	
C3315	1-163-809-11	CERAMIC CHIP 0.047UF 10.00% 25V	
C3316	1-164-004-11	CERAMIC CHIP 0.1UF 10.00% 25V	
C3319	1-126-964-11	ELECT 10UF 20.00% 50V	
C3320	1-164-004-11	CERAMIC CHIP 0.1UF 10.00% 25V	
C3321	1-164-004-11	CERAMIC CHIP 0.1UF 10.00% 25V	
C3322	1-164-004-11	CERAMIC CHIP 0.1UF 10.00% 25V	
C3324	1-164-004-11	CERAMIC CHIP 0.1UF 10.00% 25V	
C3325	1-126-964-11	ELECT 10UF 20.00% 50V	
C3326	1-164-004-11	CERAMIC CHIP 0.1UF 10.00% 25V	

REF. NO.	PART.NO	DESCRIPTION	REMARK
C3327	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3328	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3329	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3330	1-126-964-11	ELECT 10UF	20.00% 50V
C3331	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C3333	1-126-964-11	ELECT 10UF	20.00% 50V
C3335	1-126-964-11	ELECT 10UF	20.00% 50V
C3337	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3339	1-163-231-11	CERAMIC CHIP 15PF	5.00% 50V
C3340	1-163-231-11	CERAMIC CHIP 15PF	5.00% 50V
C3345	1-163-231-11	CERAMIC CHIP 15PF	5.00% 50V
C3346	1-163-231-11	CERAMIC CHIP 15PF	5.00% 50V
C3347	1-163-235-11	CERAMIC CHIP 22PF	5.00% 50V
C3348	1-163-235-11	CERAMIC CHIP 22PF	5.00% 50V
C3351	1-126-964-11	ELECT 10UF	20.00% 50V
C3353	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3354	1-104-664-11	ELECT 47UF	20.00% 16V
C3355	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3356	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3359	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3362	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3363	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN3100	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	

< FILTER >

REF. NO.	PART.NO	DESCRIPTION	REMARK
FL3300	1-233-736-21	FILTER, EMI	
FL3301	1-233-736-21	FILTER, EMI	
FL3302	1-233-736-21	FILTER, EMI	

< IC >

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC3300	8-759-991-41	IC L78L05ACZ-AP	
IC3301	8-759-295-09	IC TLC2932IPW-E20	
IC3302	8-759-546-03	IC SAA4977H-518	
IC3304	8-759-546-72	IC SAA4956TJ-V1-518	

< COIL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
L3302	1-412-029-11	INDUCTOR CHIP 10UH	
L3303	1-412-029-11	INDUCTOR CHIP 10UH	
L3304	1-412-029-11	INDUCTOR CHIP 10UH	
L3305	1-412-029-11	INDUCTOR CHIP 10UH	
L3306	1-412-029-11	INDUCTOR CHIP 10UH	
L3307	1-412-029-11	INDUCTOR CHIP 10UH	
L3309	1-412-029-11	INDUCTOR CHIP 10UH	
L3313	1-412-029-11	INDUCTOR CHIP 10UH	

< TRANSISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q3300	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q3303	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
Q3304	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
Q3305	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R3302	1-216-025-91	RES-CHIP 100 5%	1/10W
R3303	1-216-025-91	RES-CHIP 100 5%	1/10W
R3305	1-216-295-91	SHORT 0	
R3306	1-216-295-91	SHORT 0	
R3307	1-216-295-91	SHORT 0	
R3312	1-216-025-91	RES-CHIP 100 5%	1/10W
R3314	1-216-061-00	RES-CHIP 3.3K 5%	1/10W
R3315	1-216-041-00	RES-CHIP 470 5%	1/10W
R3316	1-216-041-00	RES-CHIP 470 5%	1/10W
R3317	1-216-041-00	RES-CHIP 470 5%	1/10W
R3318	1-216-041-00	RES-CHIP 470 5%	1/10W
R3319	1-216-041-00	RES-CHIP 470 5%	1/10W
R3320	1-216-041-00	RES-CHIP 470 5%	1/10W
R3323	1-216-049-91	RES-CHIP 1K 5%	1/10W
R3324	1-216-071-00	RES-CHIP 8.2K 5%	1/10W
R3325	1-216-049-91	RES-CHIP 1K 5%	1/10W
R3331	1-216-047-91	RES-CHIP 820 5%	1/10W
R3332	1-216-047-91	RES-CHIP 820 5%	1/10W
R3336	1-216-033-00	RES-CHIP 220 5%	1/10W
R3337	1-216-089-91	RES-CHIP 47K 5%	1/10W
R3338	1-412-006-31	INDUCTOR CHIP 10UH	
R3339	1-412-006-31	INDUCTOR CHIP 10UH	
R3341	1-216-041-00	RES-CHIP 470 5%	1/10W
R3342	1-216-051-00	RES-CHIP 1.2K 5%	1/10W
R3343	1-216-051-00	RES-CHIP 1.2K 5%	1/10W
R3344	1-412-006-31	INDUCTOR CHIP 10UH	
R3348	1-216-021-00	RES-CHIP 68 5%	1/10W
R3350	1-216-051-00	RES-CHIP 1.2K 5%	1/10W
R3360	1-216-025-91	RES-CHIP 100 5%	1/10W
R3361	1-216-025-91	RES-CHIP 100 5%	1/10W
R3364	1-216-295-91	SHORT 0	
R3370	1-216-057-00	RES-CHIP 2.2K 5%	1/10W
R3376	1-216-057-00	RES-CHIP 2.2K 5%	1/10W
R3377	1-216-057-00	RES-CHIP 2.2K 5%	1/10W
R3380	1-216-049-91	RES-CHIP 1K 5%	1/10W
R3383	1-216-057-00	RES-CHIP 2.2K 5%	1/10W
R3384	1-216-057-00	RES-CHIP 2.2K 5%	1/10W
R3385	1-216-033-00	RES-CHIP 220 5%	1/10W
R3389	1-216-049-91	RES-CHIP 1K 5%	1/10W
R3390	1-216-049-91	RES-CHIP 1K 5%	1/10W

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION			REMARK
R3391	1-216-049-91	RES-CHIP	1K	5%	1/10W
R3392	1-216-025-91	RES-CHIP	100	5%	1/10W
R3393	1-216-025-91	RES-CHIP	100	5%	1/10W
R3394	1-216-049-91	RES-CHIP	1K	5%	1/10W
R3395	1-216-049-91	RES-CHIP	1K	5%	1/10W
R3396	1-216-295-91	SHORT	0		
R3397	1-216-295-91	SHORT	0		
R3398	1-216-049-91	RES-CHIP	1K	5%	1/10W

*A-1624-086-A F1 Board, Complete

	*4-374-846-01	COVER, CAPACITOR, CAP TYPE			
		< CAPACITOR >			
C7626	⚠ 1-136-527-12	FILM	0.47UF	20.00%	300V
		< CONNECTOR >			
CN7611	⚠ *1-580-843-11	PIN, CONNECTOR (POWER)			
CN7622	1-695-915-11	TAB (CONTACT)			
CN7633	⚠ *1-580-843-11	PIN, CONNECTOR (POWER)			
CN7655	1-695-915-11	TAB (CONTACT)			
		< FUSE >			
F7626	⚠ 1-576-232-11	FUSE (H.B.C.) 5A/250V			
	⚠ *1-533-725-11	HOLDER, FUSE (F7626)			
		< RESISTOR >			
R7626	⚠ 1-202-885-91	SOLID	1M	20%	1/2W
R7627	⚠ 1-220-797-11	CEMENTED	0.47	5%	10W
		< TRANSFORMER >			
LF7627	⚠ 1-433-488-11	TRANSFORMER, LINE FILTER			
		< VARISTOR >			
VD7626	⚠ 1-803-830-31	VARISTOR (ERZV14D621)			

*A-1631-115-A A Board, Complete (KV-29FQ65B)

*A-1631-114-A A Board, Complete (KV-29FQ65E/29FQ65K)

A Board, Common Parts

REF. NO.	PART.NO	DESCRIPTION			REMARK
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		< CAPACITOR >			
C1100	1-104-664-11	ELECT	47UF	20.00%	25V
C1101	1-126-943-11	ELECT	2200UF	20.00%	25V
C1126	1-162-568-11	CERAMIC CHIP	0.33UF	10.00%	16V
C1127	1-137-194-81	MYLAR	0.47UF	5.00%	50V
C1128	1-163-135-00	CERAMIC CHIP	560PF	5.00%	50V
C1129	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1130	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C1131	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C1132	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C1133	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1134	1-126-961-11	ELECT	2.2UF	20.00%	50V
C1135	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1136	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1137	1-126-953-11	ELECT	2200UF	20.00%	35V
C1138	1-126-953-11	ELECT	2200UF	20.00%	35V
C1140	1-111-216-91	ELECT	150UF	20.00%	63V
C1141	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C1142	1-130-777-00	MYLAR	0.1UF	5.00%	63V
C1151	1-162-568-11	CERAMIC CHIP	0.33UF	10.00%	16V
C1152	1-137-194-81	MYLAR	0.47UF	5.00%	50V
C1153	1-163-135-00	CERAMIC CHIP	560PF	5.00%	50V
C1154	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1155	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C1156	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C1157	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C1158	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1159	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1160	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1162	1-111-216-91	ELECT	150UF	20.00%	63V
C1163	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C1164	1-130-777-00	MYLAR	0.1UF	5.00%	63V
C1177	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1178	1-126-964-11	ELECT	10UF	20.00%	50V
C1179	1-126-964-11	ELECT	10UF	20.00%	50V
C1180	1-126-952-11	ELECT	1000UF	20.00%	35V
C1181	1-126-952-11	ELECT	1000UF	20.00%	35V
C1182	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1183	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1184	1-107-823-11	CERAMIC CHIP	0.47UF	10.00%	16V
C1226	1-104-661-91	ELECT	330UF	20.00%	16V
C1227	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C1326	1-163-059-91	CERAMIC CHIP	0.01UF	10.00%	50V
C1327	1-126-934-11	ELECT	220UF	20.00%	10V
C1328	1-163-117-00	CERAMIC CHIP	100PF	5.00%	50V
C1601	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1602	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1603	1-126-933-11	ELECT	100UF	20.00%	16V
C1604	1-126-933-11	ELECT	100UF	20.00%	16V
C1605	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V

REF. NO.	PART.NO	DESCRIPTION	REMARK
C1607	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1608	1-126-934-11	ELECT 220UF	20.00% 16V
C1610	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1611	1-126-933-11	ELECT 100UF	20.00% 16V
C1612	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1613	1-126-933-11	ELECT 100UF	20.00% 16V
C1615	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1617	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN1111	*1-564-520-11	PLUG, CONNECTOR 5P	
CN1200	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN1401	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN1600	1-900-903-64	CONNECTOR ASSY 20P	
CN1601	1-900-903-64	CONNECTOR ASSY 20P	
CN1602	1-900-903-64	CONNECTOR ASSY 20P	
CN1700	*1-564-507-11	PLUG, CONNECTOR 4P	
CN1702	*1-564-506-11	PLUG, CONNECTOR 3P	
CN1703	1-764-334-11	PLUG, CONNECTOR 11P	
CN1801	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN1802	*1-564-506-11	PLUG, CONNECTOR 3P	
CN1901	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN1902	*1-564-507-11	PLUG, CONNECTOR 4P	
CN1904	*1-564-506-11	PLUG, CONNECTOR 3P	
CN1988	*1-564-507-11	PLUG, CONNECTOR 4P	

< DIODE >

REF. NO.	PART.NO	DESCRIPTION	REMARK
D1100	8-719-914-43	DIODE DAN202K-T-146	
D1101	8-719-914-44	DIODE DAP202K-T-146	
D1102	8-719-914-43	DIODE DAN202K-T-146	
D1103	8-719-914-43	DIODE DAN202K-T-146	
D1104	8-719-914-43	DIODE DAN202K-T-146	
D1201	8-719-976-96	DIODE UDZ-TE-17-4.7B	
D1401	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D1402	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D1405	8-719-914-44	DIODE DAP202K-T-146	
D1406	8-719-914-43	DIODE DAN202K-T-146	
D1407	8-719-069-55	DIODE UDZS-TE17-5.6B	
D1408	8-719-069-55	DIODE UDZS-TE17-5.6B	
D1626	8-719-914-43	DIODE DAN202K-T-146	
D1627	8-719-914-43	DIODE DAN202K-T-146	
D1629	8-719-914-43	DIODE DAN202K-T-146	

< FERRITE BEAD >

REF. NO.	PART.NO	DESCRIPTION	REMARK
FB1126	1-535-143-61	LEAD, JUMPER (5.00MM)	
FB1127	1-410-397-21	FERRITE 1.1UH	
FB1151	1-535-143-61	LEAD, JUMPER (5.00MM)	
FB1152	1-410-397-21	FERRITE 1.1UH	
FB1901	1-414-553-11	FERRITE 0UH	
FB1903	1-414-553-11	FERRITE 0UH	
FB1904	1-414-553-11	FERRITE 0UH	
FB1905	1-414-553-11	FERRITE 0UH	
FB1906	1-414-553-11	FERRITE 0UH	
FB1907	1-414-553-11	FERRITE 0UH	

< IC >

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC1126	8-759-544-25	IC TDA7482	
IC1151	8-759-544-25	IC TDA7482	
IC1176	8-759-333-24	IC LM1876TF	
IC1400	8-752-072-94	IC CXA1875AM-T4	
IC1601	8-759-574-76	IC KA78R05-SYDTU	
IC1602	8-759-574-76	IC KA78R05-SYDTU	
IC1604	8-759-544-13	IC KA78R09-YDTU	
IC1605	8-759-574-75	IC KA78R33-YDTU	

< COIL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
L1126	1-416-857-11	INDUCTOR 65UH	
L1127	1-414-158-11	INDUCTOR 2.2UH	
L1128	1-414-158-11	INDUCTOR 2.2UH	
L1151	1-416-857-11	INDUCTOR 65UH	
L1152	1-414-158-11	INDUCTOR 2.2UH	
L1153	1-414-158-11	INDUCTOR 2.2UH	
L1326	1-414-183-41	INDUCTOR 10UH	

< TRANSISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q1100	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1101	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q1201	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q1202	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q1204	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q1226	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q1227	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q1229	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q1326	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q1327	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1328	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q1329	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1601	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q1626	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
JR1203	1-216-296-91	SHORT 0	
JR1204	1-216-296-91	SHORT 0	
JR1601	1-216-296-91	SHORT 0	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R1001	1-216-295-91	SHORT 0	
R1002	1-216-295-91	SHORT 0	
R1003	1-216-295-91	SHORT 0	
R1004	1-216-295-91	SHORT 0	
R1005	1-216-295-91	SHORT 0	
R1006	1-216-295-91	SHORT 0	
R1100	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1101	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R1103	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1104	1-216-296-91	SHORT 0	
R1126	1-216-631-11	METAL CHIP 150 0.5% 1/10W	
R1127	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1128	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1151	1-216-631-11	METAL CHIP 150 0.5% 1/10W	
R1152	1-216-075-00	RES-CHIP 12K 5% 1/10W	
R1153	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1176	1-216-063-91	RES-CHIP 3.9K 5% 1/10W	
R1179	1-216-357-00	METAL OXIDE 4.7 5% 1W	
R1180	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R1181	1-216-045-00	RES-CHIP 680 5% 1/10W	
R1182	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R1183	1-216-045-00	RES-CHIP 680 5% 1/10W	
R1184	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1185	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1201	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1202	1-216-083-00	RES-CHIP 27K 5% 1/10W	
R1203	1-216-083-00	RES-CHIP 27K 5% 1/10W	
R1204	1-216-071-00	RES-CHIP 8.2K 5% 1/10W	
R1205	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1206	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1208	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1209	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
R1210	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1227	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1228	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1229	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1230	1-216-055-00	RES-CHIP 1.8K 5% 1/10W	
R1232	1-216-295-91	SHORT 0	
R1233	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R1326	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1327	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1328	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1329	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1330	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1331	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1332	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1333	1-216-075-00	RES-CHIP 12K 5% 1/10W	
R1334	1-216-069-00	RES-CHIP 6.8K 5% 1/10W	
R1335	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1336	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1337	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1338	1-216-001-00	RES-CHIP 10 5% 1/10W	
R1339	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1340	1-216-043-91	RES-CHIP 560 5% 1/10W	
R1342	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1403	1-216-295-91	SHORT 0	
R1404	1-216-295-91	SHORT 0	
R1405	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1407	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1408	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1409	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1410	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1411	1-216-295-91	SHORT 0	
R1412	1-216-295-91	SHORT 0	
R1601	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R1602	1-216-691-11	METAL CHIP 47K 0.5% 1/10W	
R1603	1-216-025-91	RES-CHIP 100 5% 1/10W	
R1605	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R1609	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1610	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
R1616	1-216-304-11	RES-CHIP 3.3 5% 1/10W	
R1617	1-216-304-11	RES-CHIP 3.3 5% 1/10W	
R1618	1-216-295-91	SHORT 0	
R1621	1-216-027-00	RES-CHIP 120 5% 1/10W	
R1622	1-216-029-00	RES-CHIP 150 5% 1/10W	
R1623	1-216-033-00	RES-CHIP 220 5% 1/10W	
R1625	1-216-295-91	SHORT 0	

A Board, Variant Parts KV-29FQ65B/29FQ65E/29FQ65K

< TUNER >

REF. NO.	PART.NO	DESCRIPTION	REMARK
TU1326	1-693-339-11	TUNER/VIF(FR)	(KV-29FQ65B)
	1-693-338-11	TUNER/VIF(AEP)	(KV-29FQ65E/29FQ65K)

*A-1634-057-A M1 Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C9100	1-115-340-11	CERAMIC CHIP 0.22UF 10.00% 25V	
C9101	1-163-251-11	CERAMIC CHIP 100PF 5.00% 50V	
C9102	1-163-251-11	CERAMIC CHIP 100PF 5.00% 50V	
C9104	1-104-664-11	ELECT 47UF 20.00% 25V	
C9105	1-164-004-11	CERAMIC CHIP 0.1UF 10.00% 25V	
C9110	1-165-321-11	CERAMIC CHIP 0.68UF 10.00% 16V	
C9111	1-164-157-11	CERAMIC CHIP 0.068UF 10.00% 25V	
C9112	1-164-004-11	CERAMIC CHIP 0.1UF 10.00% 25V	

REF. NO.	PART.NO	DESCRIPTION	REMARK
C9113	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9114	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9115	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C9117	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9118	1-104-664-11	ELECT 47UF	20.00% 25V
C9119	1-163-259-91	CERAMIC CHIP 220PF	5.00% 50V
C9121	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C9122	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C9123	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9124	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9125	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9126	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V
C9127	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V
C9128	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V
C9129	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V
C9130	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V
C9131	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V
C9132	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9400	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C9500	1-104-664-11	ELECT 47UF	20.00% 25V
C9502	1-104-664-11	ELECT 47UF	20.00% 25V
C9503	1-126-964-11	ELECT 10UF	20.00% 50V
C9504	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9505	1-104-665-11	ELECT 100UF	20.00% 25V
C9506	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C9507	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C9508	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C9509	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C9510	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C9511	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9512	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9513	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C9514	1-163-235-11	CERAMIC CHIP 22PF	5.00% 50V
C9515	1-163-235-11	CERAMIC CHIP 22PF	5.00% 50V
C9516	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C9517	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C9518	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C9519	1-126-964-11	ELECT 10UF	20.00% 50V
C9520	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
		< CONNECTOR >	
CN9101	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
		< DIODE >	
D9100	8-719-988-61	DIODE 1SS355TE-17	
D9101	8-719-988-61	DIODE 1SS355TE-17	
D9102	8-719-988-61	DIODE 1SS355TE-17	
D9103	8-719-988-61	DIODE 1SS355TE-17	
D9104	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D9105	8-719-914-43	DIODE DAN202K-T-146	
D9107	8-719-025-31	DIODE 02CZ5.6-TE85L	
		< FILTER >	
FL9101	1-236-071-11	ENCAPSULATED COMPONENT	
FL9500	1-236-071-11	ENCAPSULATED COMPONENT	
FL9501	1-236-071-11	ENCAPSULATED COMPONENT	
		< IC >	
IC9100	8-759-988-13	IC LM393PS-E20	
IC9104	8-759-259-18	IC MB3793-42PNF-ER	
IC9105	8-759-544-30	IC SAB-C161R1-LM	
IC9107	8-759-395-27	IC TC55257DFTL-70V-EL	
IC9108	8-759-564-06	IC M24C32-MN6T	
IC9109	8-759-597-95	IC M27C800-100K1-AE513	
IC9110	8-759-559-96	IC HEF4094BT	
IC9500	8-759-991-85	IC 74F00SJX	
IC9501	8-759-666-17	IC MSM5116400D-60SJR1	
IC9502	8-759-665-84	IC SDA5275-3PC02-22	
		< COIL >	
L9400	1-412-029-11	INDUCTOR CHIP 10UH	
L9401	1-412-029-11	INDUCTOR CHIP 10UH	
		< TRANSISTOR >	
Q9100	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q9101	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q9102	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
Q9103	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q9105	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q9106	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q9107	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q9108	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q9109	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q9110	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q9500	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
Q9501	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
Q9502	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
Q9503	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q9504	1-801-806-11	TRANSISTOR DTC144EKA-T146	
		< RESISTOR >	
R9100	1-216-073-00	RES-CHIP 10K	5% 1/10W
R9101	1-216-033-00	RES-CHIP 220	5% 1/10W
R9102	1-216-033-00	RES-CHIP 220	5% 1/10W
R9103	1-216-025-91	RES-CHIP 100	5% 1/10W

REF. NO.	PART.NO	DESCRIPTION			REMARK
R9104	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9105	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9106	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9107	1-216-025-91	RES-CHIP	100	5%	1/10W
R9108	1-216-025-91	RES-CHIP	100	5%	1/10W
R9109	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9110	1-216-081-00	RES-CHIP	22K	5%	1/10W
R9111	1-216-025-91	RES-CHIP	100	5%	1/10W
R9112	1-216-025-91	RES-CHIP	100	5%	1/10W
R9113	1-216-033-00	RES-CHIP	220	5%	1/10W
R9114	1-216-083-00	RES-CHIP	27K	5%	1/10W
R9115	1-216-081-00	RES-CHIP	22K	5%	1/10W
R9116	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9117	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9119	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9120	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9121	1-216-017-91	RES-CHIP	47	5%	1/10W
R9122	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9123	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9127	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9128	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9135	1-216-295-91	SHORT	0		
R9138	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9140	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9141	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9142	1-216-041-00	RES-CHIP	470	5%	1/10W
R9143	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9144	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9145	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9146	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9147	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9148	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9149	1-216-025-91	RES-CHIP	100	5%	1/10W
R9150	1-216-025-91	RES-CHIP	100	5%	1/10W
R9151	1-216-025-91	RES-CHIP	100	5%	1/10W
R9153	1-216-025-91	RES-CHIP	100	5%	1/10W
R9159	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9161	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9162	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9164	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9166	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9168	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9172	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9173	1-216-295-91	SHORT	0		
R9174	1-216-025-91	RES-CHIP	100	5%	1/10W
R9175	1-216-025-91	RES-CHIP	100	5%	1/10W
R9176	1-216-025-91	RES-CHIP	100	5%	1/10W
R9177	1-216-025-91	RES-CHIP	100	5%	1/10W
R9178	1-216-025-91	RES-CHIP	100	5%	1/10W
R9179	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9184	1-216-025-91	RES-CHIP	100	5%	1/10W
R9185	1-216-025-91	RES-CHIP	100	5%	1/10W
R9186	1-216-025-91	RES-CHIP	100	5%	1/10W
R9187	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R9188	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9189	1-216-025-91	RES-CHIP	100	5%	1/10W
R9191	1-216-025-91	RES-CHIP	100	5%	1/10W
R9192	1-216-025-91	RES-CHIP	100	5%	1/10W
R9193	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9194	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9195	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9196	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9197	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9500	1-216-295-91	SHORT	0		
R9501	1-216-295-91	SHORT	0		
R9502	1-216-295-91	SHORT	0		
R9504	1-216-041-00	RES-CHIP	470	5%	1/10W
R9505	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R9506	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9507	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9508	1-216-017-91	RES-CHIP	47	5%	1/10W
R9509	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9510	1-216-017-91	RES-CHIP	47	5%	1/10W
R9511	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9512	1-216-017-91	RES-CHIP	47	5%	1/10W
R9513	1-216-017-91	RES-CHIP	47	5%	1/10W
R9514	1-216-017-91	RES-CHIP	47	5%	1/10W
R9515	1-216-295-91	SHORT	0		
R9516	1-216-295-91	SHORT	0		
R9517	1-216-295-91	SHORT	0		
R9518	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9519	1-216-039-00	RES-CHIP	390	5%	1/10W
R9520	1-216-039-00	RES-CHIP	390	5%	1/10W
R9521	1-216-039-00	RES-CHIP	390	5%	1/10W
R9522	1-216-295-91	SHORT	0		
R9523	1-216-295-91	SHORT	0		
R9524	1-216-295-91	SHORT	0		
R9525	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9526	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9527	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9528	1-216-025-91	RES-CHIP	100	5%	1/10W
R9529	1-216-025-91	RES-CHIP	100	5%	1/10W
R9530	1-216-025-91	RES-CHIP	100	5%	1/10W
R9531	1-216-295-91	SHORT	0		

The components identified by
shading and marked ⚠ are critical
for safety
Replace only with the part number
specified.

REF. NO.	PART.NO	DESCRIPTION	REMARK
		< CRYSTAL >	
X9101	1-781-107-21	VIBRATOR, SERAMIC	
X9500	1-760-551-21	VIBRATOR, CERAMIC	
***A-1638-139-A**		**C Board, Complete**	
	4-382-854-11	SCREW (M3X10), P, SW (+)	
		< CAPACITOR >	
C5301	1-163-075-00	CERAMIC CHIP 0.047UF	50V
C5302	1-128-528-11	ELECT 470UF	20.00% 16V
C5303	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C5304	1-107-967-11	ELECT 1UF	20.00% 400V
C5305	1-136-207-11	MYLAR 0.047UF	10.00% 400V
C5306	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C5307	1-163-233-11	CERAMIC CHIP 18PF	5.00% 50V
C5308	1-163-089-00	CERAMIC CHIP 6PF	0.50PF 50V
C5309	1-163-035-00	CERAMIC CHIP 0.047UF	50V
C5310	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V
C5325	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C5326	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C5328	1-128-528-11	ELECT 470UF	20.00% 16V
C5329	1-107-967-11	ELECT 1UF	20.00% 400V
C5330	1-136-207-11	MYLAR 0.047UF	10.00% 400V
C5331	1-163-089-00	CERAMIC CHIP 6PF	0.50PF 50V
C5332	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V
C5333	1-163-035-00	CERAMIC CHIP 0.047UF	50V
C5334	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V
C5350	1-107-907-11	ELECT 22UF	20.00% 50V
C5351	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C5352	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C5353	1-163-075-00	CERAMIC CHIP 0.047UF	50V
C5354	1-128-528-11	ELECT 470UF	20.00% 16V
C5355	1-107-967-11	ELECT 1UF	20.00% 400V
C5356	1-136-207-11	MYLAR 0.047UF	10.00% 400V
C5357	1-163-231-11	CERAMIC CHIP 15PF	5.00% 50V
C5358	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C5359	1-163-035-00	CERAMIC CHIP 0.047UF	50V
C5360	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V
C5375	1-107-902-11	ELECT 1UF	20.00% 50V
C5376	1-102-106-00	CERAMIC 100PF	10.00% 50V
C5377	1-104-331-11	CERAMIC 0.0022UF	10.00% 1KV
C5378	1-162-116-00	CERAMIC 680PF	10.00% 2KV
C5379	1-162-114-00	CERAMIC 0.0047UF	2KV
C5380	1-107-652-11	ELECT 10UF	20.00% 250V
C5381	1-117-214-11	CERAMIC 0.001UF	10.00% 2KV
C5382	1-162-114-00	CERAMIC 0.0047UF	2KV

REF. NO.	PART.NO	DESCRIPTION	REMARK
		< CONNECTOR >	
CN5400	1-564-511-11	PLUG, CONNECTOR 8P	
CN5511	1-695-915-11	TAB (CONTACT)	
CN5600	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
		< DIODE >	
D5300	8-719-911-19	DIODE 1SS119-25TD	
D5302	8-719-901-83	DIODE 1SS83TD	
D5325	8-719-911-19	DIODE 1SS119-25TD	
D5327	8-719-901-83	DIODE 1SS83TD	
D5350	8-719-911-19	DIODE 1SS119-25TD	
D5351	8-719-991-33	DIODE 1SS133T-77	
D5353	8-719-901-83	DIODE 1SS83TD	
D5375	8-719-991-33	DIODE 1SS133T-77	
D5376	8-719-991-33	DIODE 1SS133T-77	
D5377	8-719-908-03	DIODE GP08DPKG23	
D5378	8-719-921-88	DIODE MTZJ-T-77-13B	
D5379	8-719-982-96	DIODE MTZJ-T-77-2.2A	
D5380	8-719-982-96	DIODE MTZJ-T-77-2.2A	
D5381	8-719-031-34	DIODE RGP02-20EG23	
		< IC >	
IC5300	8-759-360-83	IC TDA6111Q/N4	
IC5325	8-759-360-83	IC TDA6111Q/N4	
IC5350	8-759-360-83	IC TDA6111Q/N4	
		< SOCKET >	
J5375 ⚠	1-540-071-22	SOCKET, CRT	
		< COIL >	
L5300	1-408-591-11	INDUCTOR 1UH	
L5325	1-408-591-11	INDUCTOR 1UH	
L5350	1-408-591-11	INDUCTOR 1UH	
L5375	1-410-671-31	INDUCTOR 47UH	
L5376	1-532-637-00	LINK, IC 1A/150V	
L5377	1-414-183-41	INDUCTOR 10UH	
		< TRANSISTOR >	
Q5300	8-729-255-12	TRANSISTOR 2SC2551O-TPE2	
Q5301	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
Q5325	8-729-255-12	TRANSISTOR 2SC2551O-TPE2	
Q5326	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
Q5350	8-729-029-56	TRANSISTOR DTA144ESA-TP	
Q5351	8-729-255-12	TRANSISTOR 2SC2551O-TPE2	
Q5352	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
Q5375	8-729-119-78	TRANSISTOR 2SC1740S-RT	

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q5376	8-729-026-39	TRANSISTOR 2SA933AS-RT	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R5300	1-249-417-11	CARBON 1K 5% 1/4W	
R5301	1-247-807-31	CARBON 100 5% 1/4W	
R5302	1-535-143-61	LEAD, JUMPER (5.00MM)	
R5303	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R5304	1-202-557-00	SOLID 220 20% 1/2W	
R5305	1-215-929-11	METAL OXIDE 100K 5% 3W	
R5306	1-249-424-11	CARBON 3.9K 5% 1/4W	
R5307	1-249-433-11	CARBON 22K 5% 1/4W	
R5308	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R5309	1-216-658-11	METAL CHIP 2K 0.5% 1/10W	
R5310	1-216-059-00	RES-CHIP 2.7K 5% 1/10W	
R5325	1-249-417-11	CARBON 1K 5% 1/4W	
R5326	1-247-807-31	CARBON 100 5% 1/4W	
R5327	1-535-143-61	LEAD, JUMPER (5.00MM)	
R5328	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R5329	1-202-557-00	SOLID 220 20% 1/2W	
R5330	1-215-929-11	METAL OXIDE 100K 5% 3W	
R5331	1-249-424-11	CARBON 3.9K 5% 1/4W	
R5332	1-249-433-11	CARBON 22K 5% 1/4W	
R5333	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R5334	1-216-059-00	RES-CHIP 2.7K 5% 1/10W	
R5335	1-216-658-11	METAL CHIP 2K 0.5% 1/10W	
R5350	1-249-417-11	CARBON 1K 5% 1/4W	
R5351	1-247-807-31	CARBON 100 5% 1/4W	
R5352	1-249-416-11	CARBON 820 5% 1/4W	
R5353	1-249-421-11	CARBON 2.2K 5% 1/4W	
R5354	1-249-418-11	CARBON 1.2K 5% 1/4W	
R5355	1-535-143-61	LEAD, JUMPER (5.00MM)	
R5356	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R5357	1-202-557-00	SOLID 220 20% 1/2W	
R5358	1-215-929-11	METAL OXIDE 100K 5% 3W	
R5359	1-249-433-11	CARBON 22K 5% 1/4W	
R5360	1-249-424-11	CARBON 3.9K 5% 1/4W	
R5361	1-249-431-11	CARBON 15K 5% 1/4W	
R5362	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R5363	1-216-059-00	RES-CHIP 2.7K 5% 1/10W	
R5364	1-216-658-11	METAL CHIP 2K 0.5% 1/10W	
R5375	1-249-435-11	CARBON 33K 5% 1/4W	
R5376	1-249-429-11	CARBON 10K 5% 1/4W	
R5377	1-249-430-11	CARBON 12K 5% 1/4W	
R5378	1-249-429-11	CARBON 10K 5% 1/4W	
R5379	1-249-438-11	CARBON 56K 5% 1/4W	
R5380	1-249-433-11	CARBON 22K 5% 1/4W	
R5381	1-216-055-00	RES-CHIP 1.8K 5% 1/10W	
R5382	1-202-549-00	SOLID 100 20% 1/2W	
R5383	1-216-399-00	METAL OXIDE 6.8 5% 3W	
R5384	1-216-399-00	METAL OXIDE 6.8 5% 3W	
R5385	1-202-549-00	SOLID 100 20% 1/2W	
R5386	1-202-884-11	SOLID 820K 20% 1/2W	
R5387	1-202-884-11	SOLID 820K 20% 1/2W	
R5388	1-215-911-11	METAL OXIDE 100 5% 3W	
R5389	1-249-417-11	CARBON 1K 5% 1/4W	

< VARIABLE RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
RV5375	1-241-656-21	RES, ADJ, METAL FILM 110M	
RV5376	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	

*A-1640-380-A D1 Board, Complete

REF. NO.	PART.NO	DESCRIPTION	REMARK
	4-202-554-01	HOLDER, HV CABLE	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C6100	1-136-165-00	MYLAR 0.1UF 5.00% 50V	
C6101	1-136-165-00	MYLAR 0.1UF 5.00% 50V	
C6102	1-136-165-00	MYLAR 0.1UF 5.00% 50V	
C6103	1-163-205-00	CERAMIC CHIP 0.001UF 5.00% 50V	
C6104	1-163-205-00	CERAMIC CHIP 0.001UF 5.00% 50V	
C6105	1-126-967-11	ELECT 47UF 20.00% 50V	
C6106	1-163-133-00	CERAMIC CHIP 470PF 5.00% 50V	
C6108	1-163-021-91	CERAMIC CHIP 0.01UF 10.00% 50V	
C6109	1-126-967-11	ELECT 47UF 20.00% 50V	
C6110	1-126-967-11	ELECT 47UF 20.00% 50V	
C6112	1-163-037-11	CERAMIC CHIP 0.022UF 10.00% 50V	
C6113	1-163-021-91	CERAMIC CHIP 0.01UF 10.00% 50V	
C6114	1-126-964-11	ELECT 10UF 20.00% 50V	
C6115	1-163-005-11	CERAMIC CHIP 470PF 10.00% 50V	
C6116	1-163-275-11	CERAMIC CHIP 0.001UF 5.00% 50V	
C6117	1-163-275-11	CERAMIC CHIP 0.001UF 5.00% 50V	
C6119	1-163-021-91	CERAMIC CHIP 0.01UF 10.00% 50V	
C6120	1-163-809-11	CERAMIC CHIP 0.047UF 10.00% 25V	
C6121	1-126-964-11	ELECT 10UF 20.00% 50V	
C6122	1-126-967-11	ELECT 47UF 20.00% 50V	
C6125	1-163-017-00	CERAMIC CHIP 0.0047UF 10.00% 50V	
C6126	1-163-809-11	CERAMIC CHIP 0.047UF 10.00% 25V	
C6127	1-163-021-91	CERAMIC CHIP 0.01UF 10.00% 50V	
C6128	1-163-017-00	CERAMIC CHIP 0.0047UF 10.00% 50V	
C6129	1-115-339-11	CERAMIC CHIP 0.1UF 10.00% 50V	
C6130	1-163-259-91	CERAMIC CHIP 220PF 5.00% 50V	
C6131	1-126-964-11	ELECT 10UF 20.00% 50V	
C6132	1-163-259-91	CERAMIC CHIP 220PF 5.00% 50V	
C6133	1-126-964-11	ELECT 10UF 20.00% 50V	

REF. NO.	PART.NO	DESCRIPTION	REMARK
C6134	1-102-935-00	CERAMIC 2PF	0.25PF 50V
C6199	1-163-229-11	CERAMIC CHIP 12PF	5.00% 50V
C6207	1-126-967-11	ELECT 47UF	20.00% 50V
C6208	1-126-967-11	ELECT 47UF	20.00% 50V
C6209	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C6210	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C6250	1-104-664-11	ELECT 47UF	20.00% 16V
C6251	1-216-295-91	SHORT 0	
C6253	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C6254	1-136-177-00	MYLAR 1UF	5.00% 50V
C6255	1-136-177-00	MYLAR 1UF	5.00% 50V
C6256	1-163-117-00	CERAMIC CHIP 100PF	5.00% 50V
C6257	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C6258	1-163-127-00	CERAMIC CHIP 270PF	5.00% 50V
C6259	1-110-501-11	CERAMIC CHIP 0.33UF	10.00% 16V
C6260	1-104-664-11	ELECT 47UF	20.00% 16V
C6261	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C6262	1-136-165-00	MYLAR 0.1UF	5.00% 50V
C6263	1-163-109-00	CERAMIC CHIP 47PF	5.00% 50V
C6264	1-126-964-11	ELECT 10UF	20.00% 50V
C6306	1-126-964-11	ELECT 10UF	20.00% 50V
C6307	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C6350	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C6351	1-126-967-11	ELECT 47UF	20.00% 50V
C6353	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C6354	1-136-159-00	MYLAR 0.033UF	5.00% 50V
C6355	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C6356	1-163-809-11	CERAMIC CHIP 0.047UF	10.00% 25V
C6357	1-136-165-00	MYLAR 0.1UF	5.00% 50V
C6358	1-104-329-11	CERAMIC CHIP 0.1UF	10.00% 50V
C6359	1-104-329-11	CERAMIC CHIP 0.1UF	10.00% 50V
C6360	1-107-714-11	ELECT 10UF	20.00% 50V
C6361	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C6362	1-164-182-11	CERAMIC CHIP 0.0033UF	10.00% 50V
C6363	1-104-665-11	ELECT 100UF	20.00% 25V
C6364	1-136-347-11	FILM 0.0047UF	5.00% 630V
C6365	1-163-809-11	CERAMIC CHIP 0.047UF	10.00% 25V
C6367	1-104-329-11	CERAMIC CHIP 0.1UF	10.00% 50V
C6368	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C6370	1-136-347-11	FILM 0.0047UF	5.00% 630V
C6373	1-136-153-00	MYLAR 0.01UF	5.00% 50V
C6374	1-129-716-00	FILM 0.015UF	5.00% 630V
C6375	1-102-110-00	CERAMIC 220PF	10.00% 50V
C6376	1-104-664-11	ELECT 47UF	20.00% 16V
C6377	1-128-551-11	ELECT 22UF	20.00% 25V
C6378	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C6380	1-136-165-00	MYLAR 0.1UF	5.00% 50V

REF. NO.	PART.NO	DESCRIPTION	REMARK
C6381	1-126-960-11	ELECT 1UF	20.00% 50V
C6385	1-104-664-11	ELECT 47UF	20.00% 25V
C6386	1-104-664-11	ELECT 47UF	20.00% 25V
C6388	1-126-964-11	ELECT 10UF	20.00% 50V
C6389	1-126-964-11	ELECT 10UF	20.00% 50V
C6392	1-104-664-11	ELECT 47UF	20.00% 25V
C6401	1-126-964-11	ELECT 10UF	20.00% 50V
C6402	1-107-714-11	ELECT 10UF	20.00% 50V
C6407	1-136-161-00	MYLAR 0.047UF	5.00% 50V
C6408	1-136-161-00	MYLAR 0.047UF	5.00% 50V
C6409	1-126-964-11	ELECT 10UF	20.00% 50V
C6420	1-136-165-00	MYLAR 0.1UF	5.00% 50V
C6421	1-136-165-00	MYLAR 0.1UF	5.00% 50V

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN6502	*1-564-509-11	PLUG, CONNECTOR 6P	
CN6600	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN6601	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
CN6622	*1-568-878-81	PLUG, CONNECTOR 3P	
CN6623	*1-568-878-51	PIN, CONNECTOR 3P	
CN6633	*1-568-878-61	PLUG, CONNECTOR 3P	

< DIODE >

REF. NO.	PART.NO	DESCRIPTION	REMARK
D6102	8-719-914-43	DIODE DAN202K-T-146	
D6104	8-719-914-43	DIODE DAN202K-T-146	
D6105	8-719-914-43	DIODE DAN202K-T-146	
D6107	8-719-914-43	DIODE DAN202K-T-146	
D6108	8-719-921-40	DIODE MTZJ-T-77-4.7B	
D6127	8-719-914-43	DIODE DAN202K-T-146	
D6128	8-719-914-43	DIODE DAN202K-T-146	
D6129	8-719-914-43	DIODE DAN202K-T-146	
D6198	1-535-143-61	LEAD, JUMPER (5.00MM)	
D6253	8-719-911-19	DIODE 1SS119-25TD	
D6254	1-535-143-61	LEAD, JUMPER (5.00MM)	
D6255	8-719-914-43	DIODE DAN202K-T-146	
D6350	8-719-914-43	DIODE DAN202K-T-146	
D6351	8-719-914-43	DIODE DAN202K-T-146	
D6352	8-719-914-43	DIODE DAN202K-T-146	
D6353	8-719-987-87	DIODE ERA82-004TP1	
D6354	8-719-914-43	DIODE DAN202K-T-146	
D6355	8-719-914-43	DIODE DAN202K-T-146	
D6358	8-719-914-43	DIODE DAN202K-T-146	
D6359	8-719-302-43	DIODE RGP10GPKG23	
D6401	8-719-914-43	DIODE DAN202K-T-146	
D6402	8-719-982-03	DIODE MTZJ-T-77-3.6A	
D6403	8-719-921-63	DIODE MTZJ-T-77-7.5B	
D6404	8-719-914-43	DIODE DAN202K-T-146	

D1

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION	REMARK
D6405	8-719-921-63	DIODE MTZJ-T-77-7.5B	

< IC >

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC6100	8-759-450-95	IC LM393N	
IC6101	8-759-450-95	IC LM393N	
IC6102	8-759-638-79	IC NJM3404AD-W	
IC6103	8-759-450-95	IC LM393N	
IC6250	8-759-478-66	IC CXA8070P	
IC6251	8-759-903-16	IC LM318P	
IC6302	8-752-072-94	IC CXA1875AM-T4	
IC6350	8-759-008-70	IC LM358N	
IC6351	8-759-450-95	IC LM393N	
IC6352	8-759-450-95	IC LM393N	
IC6353	8-759-231-53	IC L7805CV	
IC6354	8-759-325-48	IC CA0005AD	
IC6355	8-759-008-70	IC LM358N	
IC6356	8-759-822-38	IC LA6510	

< FILTER >

REF. NO.	PART.NO	DESCRIPTION	REMARK
LF6350	1-406-989-21	INDUCTOR 10MH	
LF6351	1-406-989-21	INDUCTOR 10MH	

< IC LINK >

REF. NO.	PART.NO	DESCRIPTION	REMARK
PS6376 ⚠	1-532-637-00	LINK, IC 1A/150V	

< TRANSISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q6100	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6101	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6102	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6103	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6104	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6105	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6106	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6107	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6108	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6110	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6112	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6113	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6118	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6119	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6120	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6122	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6123	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6125	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6126	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6127	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6128	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6129	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6201	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6202	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6250	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6251	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6252	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6253	8-729-045-04	TRANSISTOR 2SC5511	
Q6254	8-729-045-05	TRANSISTOR 2SA2005	
Q6350	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6351	8-729-119-78	TRANSISTOR 2SC1740S-RT	
Q6352	8-729-140-97	TRANSISTOR 2SB734-T-3	
Q6353	8-729-140-97	TRANSISTOR 2SB734-T-3	
Q6354	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6356	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6358	8-729-038-83	TRANSISTOR 2SK2251-01-F19	
Q6401	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q6402	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q6403	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6404	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6405	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6455	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q6465	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6100	1-216-033-00	RES-CHIP 220 5% 1/10W	
R6101	1-216-033-00	RES-CHIP 220 5% 1/10W	
R6102	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6103	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6104	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6105	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R6106	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6107	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R6108	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R6109	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R6110	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R6111	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6112	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6113	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6114	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6115	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R6116	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R6117	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6118	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6119	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6120	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6121	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION			REMARK
R6122	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6123	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6124	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6125	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6126	1-216-037-00	RES-CHIP	330	5%	1/10W
R6127	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R6128	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R6129	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R6130	1-218-768-11	METAL CHIP	470K	0.5%	1/10W
R6131	1-216-037-00	RES-CHIP	330	5%	1/10W
R6132	1-216-037-00	RES-CHIP	330	5%	1/10W
R6133	1-216-037-00	RES-CHIP	330	5%	1/10W
R6135	1-163-021-91	CERAMIC CHIP	0.01	10.0%	50V
R6136	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R6137	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R6138	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R6139	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R6140	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6141	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R6142	1-216-672-11	METAL CHIP	7.5K	0.5%	1/10W
R6143	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6144	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6145	1-216-295-91	SHORT	0		
R6146	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R6148	1-216-295-91	SHORT	0		
R6149	1-216-025-91	RES-CHIP	100	5%	1/10W
R6154	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R6155	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R6158	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R6159	1-216-295-91	SHORT	0		
R6160	1-216-295-91	SHORT	0		
R6161	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R6162	1-216-049-91	RES-CHIP	1K	5%	1/10W
R6165	1-216-699-91	METAL CHIP	100K	0.5%	1/10W
R6168	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6169	1-216-699-91	METAL CHIP	100K	0.5%	1/10W
R6170	1-216-037-00	RES-CHIP	330	5%	1/10W
R6171	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6174	1-216-075-00	RES-CHIP	12K	5%	1/10W
R6175	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R6176	1-216-083-00	RES-CHIP	27K	5%	1/10W
R6177	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6179	1-216-295-91	SHORT	0		
R6180	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6182	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6183	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6186	1-216-061-00	RES-CHIP	3.3K	5%	1/10W

REF. NO.	PART.NO	DESCRIPTION			REMARK
R6188	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6189	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R6190	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6191	1-215-925-11	METAL OXIDE	22K	5%	3W
R6192	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R6194	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6195	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R6196	1-249-377-11	CARBON	0.47	5%	1/4W
R6198	1-216-081-00	RES-CHIP	22K	5%	1/10W
R6199	1-216-075-00	RES-CHIP	12K	5%	1/10W
R6205	1-216-025-91	RES-CHIP	100	5%	1/10W
R6206	1-216-105-91	RES-CHIP	220K	5%	1/10W
R6207	1-216-099-00	RES-CHIP	120K	5%	1/10W
R6208	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6210	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6211	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6212	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6215	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R6216	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6217	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6218	1-216-295-91	SHORT	0		
R6254	1-216-049-91	RES-CHIP	1K	5%	1/10W
R6255	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R6256	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6257	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R6258	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6259	1-216-097-91	RES-CHIP	100K	5%	1/10W
R6260	1-216-049-91	RES-CHIP	1K	5%	1/10W
R6261	1-216-097-91	RES-CHIP	100K	5%	1/10W
R6262	1-260-321-71	CARBON	270	5%	1/2W
R6263	1-216-025-91	RES-CHIP	100	5%	1/10W
R6264	1-216-025-91	RES-CHIP	100	5%	1/10W
R6265	1-216-097-91	RES-CHIP	100K	5%	1/10W
R6267	1-216-049-91	RES-CHIP	1K	5%	1/10W
R6268	1-216-081-00	RES-CHIP	22K	5%	1/10W
R6269	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R6270	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R6271	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R6276	1-216-678-11	METAL CHIP	13K	0.5%	1/10W
R6277	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R6278	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6279	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6280	1-212-849-00	FUSIBLE	4.7	5%	1/4W
R6281	1-212-849-00	FUSIBLE	4.7	5%	1/4W
R6282	1-215-886-11	METAL OXIDE	100	5%	2W
R6283	1-216-393-00	METAL OXIDE	2.2	5%	3W
R6284	1-216-101-00	RES-CHIP	150K	5%	1/10W

D1

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6285	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6286	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6287	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6313	1-216-295-91	SHORT 0	
R6322	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R6323	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R6324	1-216-025-91	RES-CHIP 100 5% 1/10W	
R6325	1-216-025-91	RES-CHIP 100 5% 1/10W	
R6350	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R6351	1-218-762-11	METAL CHIP 270K 0.5% 1/10W	
R6353	1-216-668-11	METAL CHIP 5.1K 0.5% 1/10W	
R6355	1-218-774-11	METAL CHIP 820K 0.5% 1/10W	
R6356	1-216-675-91	METAL CHIP 10K 0.5% 1/10W	
R6357	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6358	1-216-047-91	RES-CHIP 820 5% 1/10W	
R6359	1-216-097-91	RES-CHIP 100K 5% 1/10W	
R6360	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6361	1-216-097-91	RES-CHIP 100K 5% 1/10W	
R6362	1-216-687-11	METAL CHIP 33K 0.5% 1/10W	
R6363	1-216-675-91	METAL CHIP 10K 0.5% 1/10W	
R6364	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6365	1-216-033-00	RES-CHIP 220 5% 1/10W	
R6366	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6367	1-216-679-11	METAL CHIP 15K 0.5% 1/10W	
R6368	1-218-758-11	METAL CHIP 180K 0.5% 1/10W	
R6369	1-218-762-11	METAL CHIP 270K 0.5% 1/10W	
R6370	1-216-675-91	METAL CHIP 10K 0.5% 1/10W	
R6371	1-216-473-11	METAL OXIDE 56 5% 3W	
R6372	1-216-033-00	RES-CHIP 220 5% 1/10W	
R6373	1-216-681-11	METAL CHIP 18K 0.5% 1/10W	
R6374	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R6375	1-216-041-00	RES-CHIP 470 5% 1/10W	
R6377	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R6378	1-216-675-91	METAL CHIP 10K 0.5% 1/10W	
R6379	1-216-295-91	SHORT 0	
R6380	1-218-754-11	METAL CHIP 120K 0.5% 1/10W	
R6381	1-216-045-00	RES-CHIP 680 5% 1/10W	
R6382	1-218-754-11	METAL CHIP 120K 0.5% 1/10W	
R6383	1-216-687-11	METAL CHIP 33K 0.5% 1/10W	
R6384	1-216-043-91	RES-CHIP 560 5% 1/10W	
R6385	1-216-295-91	SHORT 0	
R6386	1-216-699-91	METAL CHIP 100K 0.5% 1/10W	
R6387	1-216-677-11	METAL CHIP 12K 0.5% 1/10W	
R6391	1-249-417-11	CARBON 1K 5% 1/4W	
R6394	1-216-069-00	RES-CHIP 6.8K 5% 1/10W	
R6395	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R6397	1-216-675-91	METAL CHIP 10K 0.5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6398	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
R6399	1-218-758-11	METAL CHIP 180K 0.5% 1/10W	
R6400	1-216-675-91	METAL CHIP 10K 0.5% 1/10W	
R6401	1-216-295-91	SHORT 0	
R6402	1-216-295-91	SHORT 0	
R6403	1-216-661-11	METAL CHIP 2.7K 0.5% 1/10W	
R6404	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R6405	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R6409	1-216-025-91	RES-CHIP 100 5% 1/10W	
R6410	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6411	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6412	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6413	1-216-679-11	METAL CHIP 15K 0.5% 1/10W	
R6414	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R6415	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R6416	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R6418	1-216-091-00	RES-CHIP 56K 5% 1/10W	
R6419	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6420	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R6421	1-216-637-11	METAL CHIP 270 0.5% 1/10W	
R6422	1-216-639-11	METAL CHIP 330 0.5% 1/10W	
R6423	1-216-657-11	METAL CHIP 1.8K 0.5% 1/10W	
R6426	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R6427	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R6428	1-216-105-91	RES-CHIP 220K 5% 1/10W	
R6429	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
R6430	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
R6431	1-216-121-91	RES-CHIP 1M 5% 1/10W	
R6432	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6433	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R6437	1-249-422-11	CARBON 2.7K 5% 1/4W	
R6438	1-249-421-11	CARBON 2.2K 5% 1/4W	
R6439	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R6440	1-216-683-11	METAL CHIP 22K 0.5% 1/10W	
R6441	1-216-675-91	METAL CHIP 10K 0.5% 1/10W	
R6442	1-216-039-00	RES-CHIP 390 5% 1/10W	
R6455	1-216-295-91	SHORT 0	
R6456	1-216-097-91	RES-CHIP 100K 5% 1/10W	
R6457	1-216-075-00	RES-CHIP 12K 5% 1/10W	
R6458	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R6459	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6460	1-249-393-11	CARBON 10 5% 1/4W	
R6461	1-249-411-11	CARBON 330 5% 1/4W	
R6462	1-249-406-11	CARBON 120 5% 1/4W	
R6463	1-216-095-00	RES-CHIP 82K 5% 1/10W	
R6464	1-216-079-00	RES-CHIP 18K 5% 1/10W	

*A-1640-381-A E Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C4316	1-104-664-11	ELECT 47UF	20.00% 25V
C4317	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4318	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4319	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4320	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4321	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4322	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4324	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4325	1-163-093-00	CERAMIC CHIP 10PF	5.00% 50V
C4329	1-126-963-11	ELECT 4.7UF	20.00% 50V
C4330	1-137-581-11	FILM 0.1UF	5.00% 100V
C4331	1-126-959-11	ELECT 0.47UF	20.00% 50V
C4332	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4333	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4334	1-126-967-11	ELECT 47UF	20.00% 50V
C4336	1-126-967-11	ELECT 47UF	20.00% 50V
C4338	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4340	1-126-967-11	ELECT 47UF	20.00% 50V
C4342	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C4343	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4344	1-163-809-11	CERAMIC CHIP 0.047UF	10.00% 25V
C4345	1-126-967-11	ELECT 47UF	20.00% 50V
C4346	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4347	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4348	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4349	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4350	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4351	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C4352	1-126-967-11	ELECT 47UF	20.00% 50V
C4353	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C4354	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C4355	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4356	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4357	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4358	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4359	1-164-161-11	CERAMIC CHIP 0.0022UF	10.00% 50V
C4360	1-126-963-11	ELECT 4.7UF	20.00% 50V
C4362	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4363	1-126-967-11	ELECT 47UF	20.00% 50V
C4364	1-126-967-11	ELECT 47UF	20.00% 50V
C4366	1-163-059-91	CERAMIC CHIP 0.01UF	10.00% 50V
C4367	1-104-760-11	CERAMIC CHIP 0.047UF	10.00% 50V
C4369	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4370	1-126-967-11	ELECT 47UF	20.00% 50V
C4371	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4377	1-126-960-11	ELECT 1UF	20.00% 50V
C4518	1-162-638-11	CERAMIC CHIP 1UF	16V
C4519	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN4101	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
CN4500	*1-564-511-11	PLUG, CONNECTOR 8P	
CN4502	*1-568-878-51	PIN, CONNECTOR 3P	

< DIODE >

REF. NO.	PART.NO	DESCRIPTION	REMARK
D4304	8-719-923-60	DIODE MTZJ-T-77-9.1	
D4305	8-719-923-60	DIODE MTZJ-T-77-9.1	
D4311	8-719-914-43	DIODE DAN202K-T-146	
D4312	8-719-914-43	DIODE DAN202K-T-146	
D4313	8-719-401-63	DIODE MA3062M-TX	

< FERRITE BEAD >

REF. NO.	PART.NO	DESCRIPTION	REMARK
FB4387	1-414-234-22	INDUCTOR CHIP 0UH	
FB4388	1-414-234-22	INDUCTOR CHIP 0UH	
FB4389	1-414-234-22	INDUCTOR CHIP 0UH	

< IC >

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC4301	8-752-090-88	IC CXA2100AQ-TL	

< COIL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
L4301	1-414-183-41	INDUCTOR 10UH	
L4302	1-414-183-41	INDUCTOR 10UH	
L4303	1-414-183-41	INDUCTOR 10UH	
L4304	1-414-183-41	INDUCTOR 10UH	
L4305	1-414-183-41	INDUCTOR 10UH	
L4306	1-414-183-41	INDUCTOR 10UH	
L4308	1-414-186-31	INDUCTOR 33UH	
L4309	1-414-186-31	INDUCTOR 33UH	

< TRANSISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q4304	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4307	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4308	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4309	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4310	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4311	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4312	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4313	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4315	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q4316	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q4317	8-729-900-53	TRANSISTOR DTC114EKA-T146	

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R4301	1-216-025-91	RES-CHIP	100 5% 1/10W
R4302	1-216-025-91	RES-CHIP	100 5% 1/10W
R4303	1-216-025-91	RES-CHIP	100 5% 1/10W
R4304	1-216-025-91	RES-CHIP	100 5% 1/10W
R4305	1-216-025-91	RES-CHIP	100 5% 1/10W
R4306	1-216-025-91	RES-CHIP	100 5% 1/10W
R4307	1-216-045-00	RES-CHIP	680 5% 1/10W
R4308	1-216-045-00	RES-CHIP	680 5% 1/10W
R4309	1-216-045-00	RES-CHIP	680 5% 1/10W
R4313	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R4314	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R4331	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4332	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4333	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4334	1-216-025-91	RES-CHIP	100 5% 1/10W
R4335	1-216-025-91	RES-CHIP	100 5% 1/10W
R4336	1-216-025-91	RES-CHIP	100 5% 1/10W
R4337	1-216-025-91	RES-CHIP	100 5% 1/10W
R4339	1-216-049-91	RES-CHIP	1K 5% 1/10W
R4340	1-216-111-00	RES-CHIP	390K 5% 1/10W
R4341	1-216-295-91	SHORT	0
R4343	1-216-025-91	RES-CHIP	100 5% 1/10W
R4344	1-216-025-91	RES-CHIP	100 5% 1/10W
R4345	1-216-677-11	METAL CHIP	12K 0.5% 1/10W
R4346	1-216-681-11	METAL CHIP	18K 0.5% 1/10W
R4347	1-216-025-91	RES-CHIP	100 5% 1/10W
R4348	1-216-025-91	RES-CHIP	100 5% 1/10W
R4350	1-216-025-91	RES-CHIP	100 5% 1/10W
R4354	1-216-675-91	METAL CHIP	10K 0.5% 1/10W
R4355	1-216-009-91	RES-CHIP	22 5% 1/10W
R4356	1-216-009-91	RES-CHIP	22 5% 1/10W
R4357	1-216-009-91	RES-CHIP	22 5% 1/10W
R4358	1-216-071-00	RES-CHIP	8.2K 5% 1/10W
R4359	1-216-041-00	RES-CHIP	470 5% 1/10W
R4360	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R4361	1-216-133-00	RES-CHIP	3.3M 5% 1/10W
R4363	1-216-025-91	RES-CHIP	100 5% 1/10W
R4365	1-216-025-91	RES-CHIP	100 5% 1/10W
R4366	1-216-025-91	RES-CHIP	100 5% 1/10W
R4367	1-216-025-91	RES-CHIP	100 5% 1/10W
R4370	1-216-089-91	RES-CHIP	47K 5% 1/10W
R4371	1-216-069-00	RES-CHIP	6.8K 5% 1/10W
R4372	1-216-049-91	RES-CHIP	1K 5% 1/10W
R4373	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4374	1-216-049-91	RES-CHIP	1K 5% 1/10W
R4375	1-216-049-91	RES-CHIP	1K 5% 1/10W
R4376	1-216-049-91	RES-CHIP	1K 5% 1/10W
R4377	1-216-049-91	RES-CHIP	1K 5% 1/10W
R4378	1-216-101-00	RES-CHIP	150K 5% 1/10W
R4379	1-216-091-00	RES-CHIP	56K 5% 1/10W
R4380	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4381	1-216-125-00	RES-CHIP	1.5M 5% 1/10W
R4382	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4383	1-216-089-91	RES-CHIP	47K 5% 1/10W
R4384	1-216-025-91	RES-CHIP	100 5% 1/10W
R4387	1-216-031-00	RES-CHIP	180 5% 1/10W
R4388	1-216-031-00	RES-CHIP	180 5% 1/10W
R4389	1-216-031-00	RES-CHIP	180 5% 1/10W
R4394	1-216-025-91	RES-CHIP	100 5% 1/10W
R4395	1-216-295-91	SHORT	0
R4396	1-216-295-91	SHORT	0
R4398	1-216-025-91	RES-CHIP	100 5% 1/10W
R4399	1-216-025-91	RES-CHIP	100 5% 1/10W
R4401	1-216-107-00	RES-CHIP	270K 5% 1/10W
R4507	1-216-129-00	RES-CHIP	2.2M 5% 1/10W
R4518	1-216-025-91	RES-CHIP	100 5% 1/10W
R4519	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4520	1-216-295-91	SHORT	0
R4521	1-216-295-91	SHORT	0
R4522	1-216-073-00	RES-CHIP	10K 5% 1/10W

< CRYSTAL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
X4300	1-767-127-11	VIBRATOR, CERAMIC	

*A-1640-398-A D Board, Complete

PART.NO	DESCRIPTION
4-201-023-01	SPACER, INSULATING
4-202-373-01	SPRING, IC
4-382-854-11	SCREW (M3X10), P, SW (+)
*4-931-401-01	HEAT SINK, V.OUT

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C6600 ⚠	1-127-802-51	CERAMIC	10000PF 20.00% 250V
C6603 ⚠	1-126-933-11	ELECT	100UF 20.00% 16V
C6604 ⚠	1-126-767-11	ELECT	1000UF 20.00% 16V
C6605 ⚠	1-119-888-51	CERAMIC	2200PF 20.00% 250V
C6606 ⚠	1-119-888-51	CERAMIC	2200PF 20.00% 250V
C6607 ⚠	1-136-518-12	FILM	0.33UF 20.00% 300V
C6608 ⚠	1-161-964-91	CERAMIC	0.0047UF 250V
C6609 ⚠	1-161-964-91	CERAMIC	0.0047UF 250V
C6610 ⚠	1-161-964-91	CERAMIC	0.0047UF 250V
C6611 ⚠	1-161-964-91	CERAMIC	0.0047UF 250V

REF. NO.	PART.NO	DESCRIPTION		REMARK	
C6612	1-113-927-11	CERAMIC	10000PF	20.00%	250V
C6616	1-164-625-11	CERAMIC	680PF	10.00%	500V
C6617	1-164-625-11	CERAMIC	680PF	10.00%	500V
C6618	1-136-175-00	MYLAR	0.68UF	5.00%	50V
C6619	1-137-194-91	MYLAR	0.47UF	5.00%	50V
C6620	1-136-618-11	FILM	0.047UF	5.00%	1.25KV
C6621	1-136-175-00	MYLAR	0.68UF	5.00%	50V
C6622	1-164-625-11	CERAMIC	680PF	10.00%	500V
C6623	1-137-194-91	MYLAR	0.47UF	5.00%	50V
C6624	1-126-968-11	ELECT	100UF	20.00%	50V
C6626	1-164-625-11	CERAMIC	680PF	10.00%	500V
C6627	1-164-625-11	CERAMIC	680PF	10.00%	500V
C6628	1-126-936-11	ELECT	3300UF	20.00%	16V
C6629	1-128-548-11	ELECT	4700UF	20.00%	25V
C6630	1-110-626-11	ELECT	330UF	20.00%	160V
C6631	1-126-955-11	ELECT	4700UF	20.00%	35V
C6632	1-126-955-11	ELECT	4700UF	20.00%	35V
C6633	1-126-935-11	ELECT	470UF	20.00%	16V
C6634	1-136-165-00	MYLAR	0.1UF	5.00%	50V
C6635	1-104-664-11	ELECT	47UF	20.00%	25V
C6636	1-102-129-00	CERAMIC	0.01UF	10.00%	50V
C6637	1-102-129-00	CERAMIC	0.01UF	10.00%	50V
C6638	1-137-368-11	MYLAR	0.0047UF	5.00%	50V
C6639	1-102-228-00	CERAMIC	470PF	10.00%	500V
C6641	1-126-967-11	ELECT	47UF	20.00%	50V
C6642	1-128-551-11	ELECT	22UF	20.00%	25V
C6647	1-104-664-11	ELECT	47UF	20.00%	25V
C6649	1-126-965-11	ELECT	22UF	20.00%	50V
C6651	1-161-964-91	CERAMIC	0.0047UF		250V
C6652	1-107-679-91	ELECT	10UF	20.00%	450V
C6653	1-126-968-11	ELECT	100UF	20.00%	50V
C6654	1-162-117-00	CERAMIC	100PF	10.00%	500V
C6655	1-107-974-11	CERAMIC	47PF	5.00%	2KV
C6656	1-126-967-11	ELECT	47UF	20.00%	50V
C6657	1-126-941-11	ELECT	470UF	20.00%	25V
C6658	1-104-665-11	ELECT	100UF	20.00%	25V
C6659	1-104-665-11	ELECT	100UF	20.00%	25V
C6661	1-117-753-11	ELECT(BLOCK)	470UF	20.00%	450V
C6662	1-136-165-00	MYLAR	0.1UF	5.00%	50V
C6664	1-136-153-00	MYLAR	0.01UF	5.00%	50V
C6665	1-136-165-00	MYLAR	0.1UF	5.00%	50V
C6666	1-136-165-00	MYLAR	0.1UF	5.00%	50V
C6667	1-126-933-11	ELECT	100UF	20.00%	16V
C6668	1-126-933-11	ELECT	100UF	20.00%	16V
C6669	1-136-165-00	MYLAR	0.1UF	5.00%	50V
C6670	1-136-165-00	MYLAR	0.1UF	5.00%	50V
C6671	1-104-664-11	ELECT	47UF	20.00%	16V
C6672	1-104-664-11	ELECT	47UF	20.00%	16V
C6673	1-104-664-11	ELECT	47UF	20.00%	16V
C6677	1-136-165-00	MYLAR	0.1UF	5.00%	50V
C6679	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C6680	1-137-150-11	MYLAR	0.01UF	5.00%	50V
C6681	1-126-964-11	ELECT	10UF	20.00%	50V
C6682	1-107-679-91	ELECT	10UF	20.00%	450V
C6700	1-102-129-00	CERAMIC	0.01UF	10.00%	50V
C6703	1-128-527-11	ELECT	330UF	20.00%	25V
C6704	1-126-968-11	ELECT	100UF	20.00%	50V
C6705	1-128-527-11	ELECT	330UF	20.00%	25V
C6706	1-137-401-11	MYLAR	0.22UF	10.00%	100V
C6707	1-129-702-00	MYLAR	0.001UF	10.00%	400V
C6708	1-106-220-00	MYLAR	0.1UF	10.00%	100V
C6709	1-102-129-00	CERAMIC	0.01UF	10.00%	50V
C6710	1-130-785-11	MYLAR	0.47UF	10.00%	100V
C6727	1-102-228-00	CERAMIC	470PF	10.00%	500V
C6801	1-104-664-11	ELECT	47UF	20.00%	25V
C6802	1-126-960-11	ELECT	1UF	20.00%	50V
C6803	1-126-960-11	ELECT	1UF	20.00%	50V
C6804	1-102-114-00	CERAMIC	470PF	10.00%	50V
C6805	1-102-114-00	CERAMIC	470PF	10.00%	50V
C6808	1-102-030-00	CERAMIC	330PF	10.00%	500V
C6809	1-102-030-00	CERAMIC	330PF	10.00%	500V
C6810	1-107-368-11	MYLAR	0.047UF	10.00%	200V
C6811	1-107-368-11	MYLAR	0.047UF	10.00%	200V
C6812	1-162-131-11	CERAMIC	220PF	10.00%	2KV
C6813	1-162-558-11	CERAMIC	100PF	10.00%	2KV
C6814	1-117-640-11	FILM	6800PF	3.00%	1.2KV
C6815	1-117-835-11	FILM	6200PF	3.00%	1.5KV
C6816	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C6817	1-125-893-11	FILM	680PF	3.00%	1.5KV
C6818	1-125-893-11	FILM	680PF	3.00%	1.5KV
C6819	1-125-893-11	FILM	680PF	3.00%	1.5KV
C6820	1-125-893-11	FILM	680PF	3.00%	1.5KV
C6824	1-107-846-11	FILM	0.1UF	5.00%	250V
C6825	1-115-514-11	FILM	0.22UF	5.00%	250V
C6826	1-115-518-11	FILM	0.47UF	5.00%	250V
C6827	1-115-511-11	FILM	0.12UF	5.00%	250V
C6828	1-127-681-11	FILM MELF	10000PF	2%	100V
C6829	1-127-680-11	FILM MELF	4700PF	2%	100V
C6830	1-107-655-11	ELECT	47UF	20.00%	250V
C6831	1-102-228-00	CERAMIC	470PF	10.00%	500V
C6832	1-126-941-11	ELECT	470UF	20.00%	25V
C6833	1-126-941-11	ELECT	470UF	20.00%	25V
C6834	1-102-228-00	CERAMIC	470PF	10.00%	500V
C6835	1-102-228-00	CERAMIC	470PF	10.00%	500V

The components identified by shading and marked ⚠ are critical for safety
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REF. NO.	PART.NO	DESCRIPTION	REMARK
C6836	1-123-024-21	ELECT 33UF	160V
C6837	1-106-375-12	MYLAR 0.022UF	10.00% 250V
C6840	1-137-150-11	MYLAR 0.01UF	5.00% 50V
C6841	1-104-664-11	ELECT 47UF	20.00% 16V
C6844	1-115-513-21	FILM 0.18UF	5.00% 250V
C6851	1-162-131-11	CERAMIC 220PF	10.00% 2KV
C6852	1-162-129-00	CERAMIC 150PF	10.00% 2KV
C6853	1-129-898-00	FILM 0.0022UF	5.00% 630V
C6855	1-136-205-11	MYLAR 0.022UF	10.00% 400V
C6856	1-102-030-00	CERAMIC 330PF	10.00% 500V
C6857	1-130-785-11	MYLAR 0.47UF	10.00% 100V
C6861	1-130-471-00	MYLAR 0.001UF	5.00% 50V
C6862	1-130-471-00	MYLAR 0.001UF	5.00% 50V

< CONNECTOR >

CN6100	1-785-802-11	PIN, CONNECTOR (WITH PWB) 20P	
CN6101	1-785-802-11	PIN, CONNECTOR (WITH PWB) 20P	
CN6102	1-785-802-11	PIN, CONNECTOR (WITH PWB) 20P	
CN6500	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
CN6600	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN6611	*1-785-270-12	PIN, DY CONNECTOR (PC BOARD)	
CN6620 ⚠	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN6622	1-695-915-11	TAB (CONTACT)	
CN6644 ⚠	*1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN6655	1-695-915-11	TAB (CONTACT)	
CN6666 ⚠	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN6700 ⚠	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	

< DIODE >

D6600	8-719-911-19	DIODE 1SS119-25TD	
D6601 ⚠	8-719-063-73	DIODE D1NL20U-TR	
D6602	8-719-109-89	DIODE MTZJ-T-77-5.6B	
D6603 ⚠	8-719-921-19	DIODE 1SS119-25TD	
D6604	8-719-510-53	DIODE D4SB60L-F	
D6605	8-719-991-33	DIODE 1SS133T-77	
D6610	8-719-063-73	DIODE D1NL20U-TR	
D6613	8-719-911-19	DIODE 1SS119-25TD	
D6615	8-719-911-19	DIODE 1SS119-25TD	
D6616	8-719-510-12	DIODE D10SC4M-F	
D6617	8-719-500-71	DIODE D8LC40F	
D6618	8-719-079-50	DIODE RBV-402L	
D6619	8-719-510-12	DIODE D10SC4M-F	
D6620	8-719-510-09	DIODE D10SC6M-F	
D6621	8-719-991-33	DIODE 1SS133T-77	
D6622	8-719-991-33	DIODE 1SS133T-77	
D6623	8-719-911-19	DIODE 1SS119-25TD	
D6624	8-719-991-33	DIODE 1SS133T-77	

REF. NO.	PART.NO	DESCRIPTION	REMARK
D6625	8-719-991-33	DIODE 1SS133T-77	
D6626	8-719-991-33	DIODE 1SS133T-77	
D6627	8-719-982-27	DIODE MTZJ-T-77-33C	
D6628	8-719-109-97	DIODE MTZJ-T-77-6.8	
D6629	8-719-991-33	DIODE 1SS133T-77	
D6630	8-719-991-33	DIODE 1SS133T-77	
D6631 ⚠	8-719-991-33	DIODE 1SS133T-77	
D6651	8-719-068-00	DIODE ERC04-06SE	
D6652	8-719-921-83	DIODE MTZJ-T-77-12A	
D6653	8-719-063-73	DIODE D1NL20U-TR	
D6654	8-719-059-23	DIODE P6KE200AG23	
D6655	8-719-979-64	DIODE UF4005PKG23	
D6656	8-719-063-73	DIODE D1NL20U-TR	
D6658	8-719-068-00	DIODE ERC04-06SE	
D6659	8-719-063-73	DIODE D1NL20U-TR	
D6676	8-719-991-33	DIODE 1SS133T-77	
D6677	8-719-921-40	DIODE MTZJ-T-77-4.7B	
D6678	8-719-921-40	DIODE MTZJ-T-77-4.7B	
D6679	8-719-991-33	DIODE 1SS133T-77	
D6681	8-719-991-33	DIODE 1SS133T-77	
D6700	8-719-200-02	DIODE ERA15-02TP1	
D6701	8-719-110-41	DIODE MTZJ-T-77-15B	
D6803	8-719-200-02	DIODE ERA15-02TP1	
D6804	1-535-143-11	LEAD, JUMPER (10.00MM)	
D6805	8-719-302-43	DIODE RGP10GPKG23	
D6806	8-719-979-85	DIODE RGP15GPKG23	
D6807	8-719-510-73	DIODE S3L20UF4	
D6808	8-719-510-73	DIODE S3L20UF4	
D6809	8-719-991-33	DIODE 1SS133T-77	
D6810	1-247-895-91	CARBON 470K	5% 1/4W
D6811	8-719-110-41	DIODE MTZJ-T-77-15B	
D6851	8-719-970-87	DIODE ERA38-06TP1	
D6852	8-719-970-87	DIODE ERA38-06TP1	

< FERRITE BEAD >

FB6602	1-410-396-41	FERRITE 0.45UH	
FB6603	1-410-396-41	FERRITE 0.45UH	

< IC >

IC6600	1-810-051-11	POWER MODULE DM-48	
IC6604	8-729-045-40	TRANSISTOR MX0842A-F	
IC6651	8-759-468-89	IC TOP209P	
IC6652	8-759-394-35	IC BA12T	
IC6653	8-759-544-13	IC KA78R09-YDTU	
IC6654	8-759-574-76	IC KA78R05-SYDTU	
IC6667	8-759-908-15	IC TL431CZ	
IC6676	8-759-908-15	IC TL431CZ	

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REF. NO.	PART.NO	DESCRIPTION	REMARK
IC6700	8-759-192-71	IC STV9379	
IC6801	8-759-103-93	IC LM393P	

< COIL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
L6602	1-412-529-11	INDUCTOR 22UH	
L6603	1-412-529-11	INDUCTOR 22UH	
L6604	1-412-525-31	INDUCTOR 10UH	
L6605	1-412-523-41	INDUCTOR 6.8UH	
L6606	1-412-525-31	INDUCTOR 10UH	
L6607	1-412-525-31	INDUCTOR 10UH	
L6651	1-414-183-41	INDUCTOR 10UH	
L6700	1-412-524-11	INDUCTOR 8.2UH	
L6801	1-412-519-11	INDUCTOR 3.3UH	
L6802	1-412-519-11	INDUCTOR 3.3UH	
L6803	1-412-533-21	INDUCTOR 47UH	
L6805	1-408-947-00	INDUCTOR 2.2MH	
L6806	1-535-143-61	LEAD, JUMPER (5.00MM)	
L6807	1-410-397-21	FERRITE 1.1UH	
L6851	1-535-143-61	LEAD, JUMPER (5.00MM)	

< FILTER >

REF. NO.	PART.NO	DESCRIPTION	REMARK
LF6603	1-406-659-11	INDUCTOR 10UH	
LF6604	1-406-659-11	INDUCTOR 10UH	
LF6801	1-406-985-11	INDUCTOR 2.2MH	
LF6851	1-406-674-11	INDUCTOR 3.3MH	

< IC LINK >

REF. NO.	PART.NO	DESCRIPTION	REMARK
PS6601 ⚠	1-801-550-21	PROTECTOR, MODULE 2.5A MP250	
PS6602 ⚠	1-801-550-21	PROTECTOR, MODULE 2.5A MP250	
PS6603 ⚠	1-801-549-21	PROTECTOR, MODULE 4.0A MP250	
PS6604 ⚠	1-801-550-21	PROTECTOR, MODULE 2.5A MP250	
PS6605 ⚠	1-801-550-21	PROTECTOR, MODULE 2.5A MP250	

< TRANSISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q6600 ⚠	8-729-046-47	TRANSISTOR KSC2500-BTA	
Q6602	8-729-026-39	TRANSISTOR 2SA933AS-RT	
Q6603	8-729-119-78	TRANSISTOR 2SC1740S-RT	
Q6605	8-729-046-47	TRANSISTOR KSC2500-BTA	
Q6606	8-729-029-56	TRANSISTOR DTA144ESA-TP	
Q6607	8-729-119-78	TRANSISTOR 2SC1740S-RT	
Q6608	8-729-029-66	TRANSISTOR DTC114ESA-TP	
Q6611	8-729-029-66	TRANSISTOR DTC114ESA-TP	
Q6651	8-729-026-39	TRANSISTOR 2SA933AS-RT	
Q6652	8-729-029-86	TRANSISTOR DTC124ESA-TP	
Q6667	8-729-026-39	TRANSISTOR 2SA933AS-RT	
Q6676	8-729-119-78	TRANSISTOR 2SC1740S-RT	
Q6677	8-729-119-78	TRANSISTOR 2SC1740S-RT	
Q6678	8-729-119-78	TRANSISTOR 2SC1740S-RT	
Q6679	8-729-026-39	TRANSISTOR 2SA933AS-RT	
Q6680	8-729-029-66	TRANSISTOR DTC114ESA-TP	
Q6681	8-729-029-66	TRANSISTOR DTC114ESA-TP	
Q6700	8-729-039-68	TRANSISTOR IRF620	
Q6801	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q6802	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q6803	8-729-046-18	TRANSISTOR 2SC5480-01	
Q6804	8-729-046-18	TRANSISTOR 2SC5480-01	
Q6805	8-729-038-83	TRANSISTOR 2SK2251-01-F19	
Q6806	8-729-047-59	TRANSISTOR STP5NB40FP	
Q6807	8-729-030-02	TRANSISTOR DTC144ESA-TP	
Q6851	8-729-043-95	TRANSISTOR 2SC3840K	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6601 ⚠	1-202-968-11	CEMENTED 1.2 5% 10W	
R6602	1-249-433-11	CARBON 22K 5% 1/4W	
R6603 ⚠	1-249-430-11	CARBON 12K 5% 1/4W	
R6604	1-249-421-11	CARBON 2.2K 5% 1/4W	
R6605	1-249-417-11	CARBON 1K 5% 1/4W	
R6606 ⚠	1-202-968-11	CEMENTED 1.2 5% 10W	
R6608 ⚠	1-220-797-11	CEMENTED 0.47 5% 10W	
R6611 ⚠	1-260-125-11	CARBON 150K 5% 1/2W	
R6612	1-260-125-11	CARBON 150K 5% 1/2W	
R6613	1-216-369-00	METAL OXIDE 1 5% 2W	
R6614	1-260-125-11	CARBON 150K 5% 1/2W	
R6615	1-260-125-11	CARBON 150K 5% 1/2W	
R6616	1-216-369-00	METAL OXIDE 1 5% 2W	
R6619	1-249-425-11	CARBON 4.7K 5% 1/4W	
R6620	1-249-443-11	CARBON 0.47 5% 1/4W	
R6624	1-249-425-11	CARBON 4.7K 5% 1/4W	
R6625	1-249-429-11	CARBON 10K 5% 1/4W	
R6626	1-247-807-31	CARBON 100 5% 1/4W	
R6627	1-249-429-11	CARBON 10K 5% 1/4W	
R6628	1-260-129-11	CARBON 330K 5% 1/2W	
R6629	1-260-129-11	CARBON 330K 5% 1/2W	
R6630	1-249-417-11	CARBON 1K 5% 1/4W	
R6631	1-249-425-11	CARBON 4.7K 5% 1/4W	
R6632	1-207-905-00	WIREWOUND 0.27 10% 2W	
R6633	1-249-429-11	CARBON 10K 5% 1/4W	
R6635	1-535-143-11	LEAD, JUMPER (10.00MM)	
R6637	1-249-421-11	CARBON 2.2K 5% 1/4W	
R6638	1-247-895-91	CARBON 470K 5% 1/4W	
R6639	1-249-416-11	CARBON 820 5% 1/4W	
R6640	1-249-417-11	CARBON 1K 5% 1/4W	
R6641	1-260-127-11	CARBON 220K 5% 1/2W	
R6642	1-249-389-11	CARBON 4.7 5% 1/4W	
R6643	1-249-417-11	CARBON 1K 5% 1/4W	

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REF. NO.	PART.NO	DESCRIPTION	REMARK
R6644	1-249-429-11	CARBON 10K 5% 1/4W	
R6645	1-260-131-11	CARBON 470K 5% 1/2W	
R6646	1-249-429-11	CARBON 10K 5% 1/4W	
R6647	1-249-410-11	CARBON 270 5% 1/4W	
R6648	1-249-433-11	CARBON 22K 5% 1/4W	
R6649	1-215-926-00	METAL OXIDE 33K 5% 3W	
R6651	1-247-791-91	CARBON 22 5% 1/4W	
R6652	1-249-389-11	CARBON 4.7 5% 1/4W	
R6653	1-249-421-11	CARBON 2.2K 5% 1/4W	
R6655	1-249-429-11	CARBON 10K 5% 1/4W	
R6656	1-218-265-11	METAL 8.2M 5% 1W	
R6657	1-215-421-00	METAL 1K 1% 1/4W	
R6666	1-202-933-61	FUSIBLE 0.1 10% 1/2W	
R6667	1-215-441-00	METAL 6.8K 1% 1/4W	
R6668	1-249-428-11	CARBON 8.2K 5% 1/4W	
R6669	1-249-413-11	CARBON 470 5% 1/4W	
R6676	1-249-417-11	CARBON 1K 5% 1/4W	
R6677	1-249-417-11	CARBON 1K 5% 1/4W	
R6678	1-249-417-11	CARBON 1K 5% 1/4W	
R6679	1-215-479-00	METAL 270K 1% 1/4W	
R6681	1-215-467-00	METAL 82K 1% 1/4W	
R6682	1-215-447-00	METAL 12K 1% 1/4W	
R6683	1-215-429-00	METAL 2.2K 1% 1/4W	
R6684	1-247-807-31	CARBON 100 5% 1/4W	
R6685	1-249-417-11	CARBON 1K 5% 1/4W	
R6686	1-215-449-00	METAL 15K 1% 1/4W	
R6687	1-249-431-11	CARBON 15K 5% 1/4W	
R6688	1-249-417-11	CARBON 1K 5% 1/4W	
R6689	1-247-843-11	CARBON 3.3K 5% 1/4W	
R6690	1-249-429-11	CARBON 10K 5% 1/4W	
R6691	1-215-446-00	METAL 11K 1% 1/4W	
R6692	1-215-445-00	METAL 10K 1% 1/4W	
R6700	1-215-441-00	METAL 6.8K 1% 1/4W	
R6701	1-215-437-00	METAL 4.7K 1% 1/4W	
R6702	1-215-441-00	METAL 6.8K 1% 1/4W	
R6703	1-215-437-00	METAL 4.7K 1% 1/4W	
R6704	1-249-383-11	CARBON 1.5 5% 1/4W	
R6705	1-247-791-91	CARBON 22 5% 1/4W	
R6706	1-249-389-11	CARBON 4.7 5% 1/4W	
R6707	1-215-888-00	METAL OXIDE 220 5% 2W	
R6708	1-214-798-21	METAL 1.8 1% 1/2W	
R6709	1-214-798-21	METAL 1.8 1% 1/2W	
R6710	1-247-843-11	CARBON 3.3K 5% 1/4W	
R6711	1-249-418-11	CARBON 1.2K 5% 1/4W	
R6801	1-215-440-00	METAL 6.2K 1% 1/4W	
R6802	1-214-915-00	METAL 120K 1% 1/2W	
R6803	1-249-421-11	CARBON 2.2K 5% 1/4W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6804 ⚠	1-249-408-11	CARBON 180 5% 1/4W	
R6805	1-249-408-11	CARBON 180 5% 1/4W	
R6806	1-249-411-11	CARBON 330 5% 1/4W	
R6807	1-249-411-11	CARBON 330 5% 1/4W	
R6808 ⚠	1-260-340-11	CARBON 10K 5% 1/2W	
R6809	1-260-340-11	CARBON 10K 5% 1/2W	
R6810	1-215-920-11	METAL OXIDE 3.3K 5% 3W	
R6811	1-216-461-00	METAL OXIDE 5.6K 5% 2W	
R6812	1-215-895-11	METAL OXIDE 3.3K 5% 2W	
R6813	1-215-920-11	METAL OXIDE 3.3K 5% 3W	
R6814	1-215-880-00	METAL OXIDE 10 5% 2W	
R6815	1-215-880-00	METAL OXIDE 10 5% 2W	
R6816	1-216-361-00	METAL OXIDE 0.22 5% 2W	
R6817	1-216-361-00	METAL OXIDE 0.22 5% 2W	
R6818	1-249-405-11	CARBON 100 5% 1/4W	
R6819	1-247-807-31	CARBON 100 5% 1/4W	
R6820	1-535-143-51	LEAD, JUMPER (20.00MM)	
R6821	1-535-143-51	LEAD, JUMPER (20.00MM)	
R6831	1-260-124-11	CARBON 120K 5% 1/2W	
R6832	1-216-434-11	METAL OXIDE 1.8K 5% 1W	
R6833	1-202-972-61	FUSIBLE 1 5% 1/4W	
R6834	1-535-143-21	LEAD, JUMPER (12.5MM)	
R6835	1-260-288-11	CARBON 0.47 5% 1/2W	
R6836	1-249-432-11	CARBON 18K 5% 1/4W	
R6837	1-215-919-11	METAL OXIDE 2.2K 5% 3W	
R6838	1-214-905-11	METAL 47K 1% 1/2W	
R6839	1-215-919-11	METAL OXIDE 2.2K 5% 3W	
R6840	1-247-843-11	CARBON 3.3K 5% 1/4W	
R6842	1-260-123-11	CARBON 100K 5% 1/2W	
R6843	1-249-429-11	CARBON 10K 5% 1/4W	
R6844	1-249-441-11	CARBON 100K 5% 1/4W	
R6845	1-249-433-11	CARBON 22K 5% 1/4W	
R6851	1-260-123-11	CARBON 100K 5% 1/2W	
R6852	1-260-123-11	CARBON 100K 5% 1/2W	
R6853	1-260-123-11	CARBON 100K 5% 1/2W	
R6854	1-249-417-11	CARBON 1K 5% 1/4W	
R6856	1-216-485-11	METAL OXIDE 5.6K 5% 3W	
R6857	1-216-485-11	METAL OXIDE 5.6K 5% 3W	
R6858	1-215-922-11	METAL OXIDE 6.8K 5% 3W	
R6859	1-215-922-11	METAL OXIDE 6.8K 5% 3W	
R6880	1-215-436-00	METAL 4.3K 1% 1/4W	
R6885	1-215-493-00	METAL 1M 1% 1/4W	
R6886	1-215-477-00	METAL 220K 1% 1/4W	
R6887	1-215-461-00	METAL 47K 1% 1/4W	
R6888	1-249-441-11	CARBON 100K 5% 1/4W	
R6891	1-535-143-61	LEAD, JUMPER (5.00MM)	
R6892	1-535-143-61	LEAD, JUMPER (5.00MM)	

The components identified by shading and marked ⚠ are critical for safety
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REF. NO.	PART.NO	DESCRIPTION	REMARK
R6895	1-249-443-11	CARBON 0.47	5% 1/4W
R6896	1-249-443-11	CARBON 0.47	5% 1/4W
R6897	1-215-485-00	METAL 470K	1% 1/4W
R6898	1-215-493-00	METAL 1M	1% 1/4W
R6899	1-215-493-00	METAL 1M	1% 1/4W

< RELAY >

REF. NO.	PART.NO	DESCRIPTION	REMARK
RY6601 ⚠	1-755-266-11	RELAY, AC POWER	
RY6602 ⚠	1-755-167-11	RELAY, AC POWER	

< TRANSFORMER >

REF. NO.	PART.NO	DESCRIPTION	REMARK
T6600 ⚠	1-431-616-11	TRANSFORMER, CONVERTER	
T6601 ⚠	1-433-516-11	TRANSFORMER, CONVERTER (PIT)	
T6651	1-431-732-21	TRANSFORMER, CONVERTER (SRT)	
T6801	1-433-489-31	TRANSFORMER, FERRITE (HDT)	
T6802	1-433-489-31	TRANSFORMER, FERRITE (HDT)	
T6804 ⚠		TRANSFORMER ASSY, FLYBACK	
T6852	1-433-487-11	TRANSFORMER, FERRITE (DFT)	

< THERMISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
TH6600 ⚠	1-809-827-11	THERMISTOR, POSITIVE	
TH6700	1-800-193-00	THERMISTOR	

*A-1651-137-A J Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C8105	1-126-933-11	ELECT 100UF	20.00% 16V
C8106	1-126-933-11	ELECT 100UF	20.00% 16V
C8107	1-126-935-11	ELECT 470UF	20.00% 16V
C8108	1-126-933-11	ELECT 100UF	20.00% 16V
C8109	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8110	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8111	1-126-933-11	ELECT 100UF	20.00% 16V
C8112	1-107-715-11	ELECT 22UF	20.00% 16V
C8144	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8145	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8150	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8151	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C8152	1-164-346-11	CERAMIC CHIP 1UF	16V
C8153	1-107-682-11	CERAMIC CHIP 1UF	10.00% 16V
C8154	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8155	1-107-682-11	CERAMIC CHIP 1UF	10.00% 16V
C8156	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C8157	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8159	1-104-664-11	ELECT 47UF	20.00% 16V
C8200	1-104-664-11	ELECT 47UF	20.00% 16V
C8201	1-163-241-11	CERAMIC CHIP 39PF	5.00% 50V
C8202	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8203	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8204	1-164-506-11	CERAMIC CHIP 4.7UF	16V
C8205	1-165-319-11	CERAMIC CHIP 0.1UF	50V
C8208	1-164-506-11	CERAMIC CHIP 4.7UF	16V
C8209	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8210	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8211	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
C8212	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
C8213	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C8214	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C8215	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
C8216	1-126-933-11	ELECT 100UF	20.00% 16V
C8217	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8218	1-126-964-11	ELECT 10UF	20.00% 50V
C8219	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8220	1-126-964-11	ELECT 10UF	20.00% 50V
C8221	1-104-664-11	ELECT 47UF	20.00% 16V
C8222	1-104-664-11	ELECT 47UF	20.00% 16V
C8223	1-104-664-11	ELECT 47UF	20.00% 16V
C8224	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8225	1-104-664-11	ELECT 47UF	20.00% 16V
C8227	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8228	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8229	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8230	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8231	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8232	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8233	1-104-664-11	ELECT 47UF	20.00% 16V
C8234	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8235	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8236	1-126-933-11	ELECT 100UF	20.00% 16V
C8237	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8238	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C8239	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8240	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8241	1-126-964-11	ELECT 10UF	20.00% 50V
C8242	1-104-664-11	ELECT 47UF	20.00% 16V
C8301	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V
C8302	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8303	1-126-933-11	ELECT 100UF	20.00% 16V
C8304	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8305	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8306	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8307	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8308	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V

REF. NO.	PART.NO	DESCRIPTION	REMARK
C8309	1-126-961-11	ELECT 2.2UF	20.00% 50V
C8311	1-104-664-11	ELECT 47UF	20.00% 16V
C8313	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8314	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8318	1-104-664-11	ELECT 47UF	20.00% 16V
C8321	1-104-664-11	ELECT 47UF	20.00% 16V
C8322	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V
C8323	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8324	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8325	1-126-964-11	ELECT 10UF	20.00% 50V
C8326	1-104-664-11	ELECT 47UF	20.00% 16V
C8327	1-107-682-11	CERAMIC CHIP 1UF	10.00% 16V
C8328	1-104-664-11	ELECT 47UF	20.00% 16V
C8329	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8331	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8332	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8333	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8334	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8335	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8336	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8337	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8338	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8345	1-164-346-11	CERAMIC CHIP 1UF	16V
C8346	1-126-963-11	ELECT 4.7UF	20.00% 50V
C8349	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V
C8601	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8602	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8605	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8606	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8607	1-104-664-11	ELECT 47UF	20.00% 16V
C8608	1-104-664-11	ELECT 47UF	20.00% 16V
C8609	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8610	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8611	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8612	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8613	1-104-664-11	ELECT 47UF	20.00% 16V
C8614	1-104-664-11	ELECT 47UF	20.00% 16V
C8804	1-126-933-11	ELECT 100UF	20.00% 16V
C8812	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8814	1-104-664-11	ELECT 47UF	20.00% 25V
C8817	1-126-933-11	ELECT 100UF	20.00% 16V
C8822	1-126-933-11	ELECT 100UF	20.00% 16V
C8823	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8824	1-104-664-11	ELECT 47UF	20.00% 25V
C8825	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C8826	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8827	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8828	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8829	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8830	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8831	1-126-964-11	ELECT 10UF	20.00% 50V
C8832	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8833	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8834	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8835	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8836	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8837	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8838	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8839	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8840	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8841	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8842	1-104-664-11	ELECT 47UF	20.00% 16V
C8843	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8844	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8846	1-126-933-11	ELECT 100UF	20.00% 16V
C8847	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8849	1-164-346-11	CERAMIC CHIP 1UF	16V
C8850	1-164-346-11	CERAMIC CHIP 1UF	16V
C8851	1-126-967-11	ELECT 47UF	20.00% 50V
C8852	1-164-346-11	CERAMIC CHIP 1UF	16V
C8853	1-126-967-11	ELECT 47UF	20.00% 50V
C8854	1-164-346-11	CERAMIC CHIP 1UF	16V
C8855	1-164-346-11	CERAMIC CHIP 1UF	16V
C8856	1-164-346-11	CERAMIC CHIP 1UF	16V
C8857	1-164-346-11	CERAMIC CHIP 1UF	16V
C8858	1-164-346-11	CERAMIC CHIP 1UF	16V
C8859	1-164-346-11	CERAMIC CHIP 1UF	16V
C8860	1-164-346-11	CERAMIC CHIP 1UF	16V
C8861	1-164-346-11	CERAMIC CHIP 1UF	16V
C8862	1-164-346-11	CERAMIC CHIP 1UF	16V
C8863	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8864	1-164-346-11	CERAMIC CHIP 1UF	16V
C8865	1-104-664-11	ELECT 47UF	20.00% 16V
C8866	1-164-346-11	CERAMIC CHIP 1UF	16V
C8867	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8868	1-126-964-11	ELECT 10UF	20.00% 50V
C8869	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8896	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8897	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8898	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V
C8899	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V
C8900	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8901	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C8902	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V

REF. NO.	PART.NO	DESCRIPTION	REMARK
C8903	1-163-251-11	CERAMIC CHIP 100PF 5.00% 50V	
C8904	1-163-017-00	CERAMIC CHIP 0.0047UF 10.00% 50V	
C8905	1-163-251-11	CERAMIC CHIP 100PF 5.00% 50V	
C8906	1-163-251-11	CERAMIC CHIP 100PF 5.00% 50V	
C8907	1-163-017-00	CERAMIC CHIP 0.0047UF 10.00% 50V	
C8908	1-163-251-11	CERAMIC CHIP 100PF 5.00% 50V	
C8909	1-163-017-00	CERAMIC CHIP 0.0047UF 10.00% 50V	
C8910	1-163-251-11	CERAMIC CHIP 100PF 5.00% 50V	
C8911	1-163-017-00	CERAMIC CHIP 0.0047UF 10.00% 50V	
C8914	1-126-933-11	ELECT 100UF 20.00% 16V	
C8977	1-163-009-11	CERAMIC CHIP 0.001UF 10.00% 50V	
C8978	1-163-009-11	CERAMIC CHIP 0.001UF 10.00% 50V	
		< FILTER >	
CF8150	1-760-106-11	FILTER, CERAMIC	
CF8151	1-567-100-00	FILTER, CERAMIC	
CF8152	1-760-450-21	FILTER, CERAMIC	
CF8200	1-409-327-00	TRAP, CERAMIC (6.5MHZ)	
		< CONNECTOR >	
CN8101	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
CN8900	1-561-534-41	SOCKET, PIN 21P	
CN8901	1-695-293-11	SOCKET 21P	
CN8902	1-695-293-11	SOCKET 21P	
		< DIODE >	
D8150	8-719-421-57	DIODE MA73-TX	
D8151	8-719-421-57	DIODE MA73-TX	
D8152	8-719-421-57	DIODE MA73-TX	
D8153	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D8200	8-719-158-49	DIODE UDZ-TE-17-12B	
D8201	8-719-158-49	DIODE UDZ-TE-17-12B	
D8202	8-719-158-49	DIODE UDZ-TE-17-12B	
D8203	8-719-158-49	DIODE UDZ-TE-17-12B	
D8801	8-719-158-49	DIODE UDZ-TE-17-12B	
D8802	8-719-158-49	DIODE UDZ-TE-17-12B	
D8803	8-719-158-49	DIODE UDZ-TE-17-12B	
D8804	8-719-158-49	DIODE UDZ-TE-17-12B	
D8805	8-719-158-49	DIODE UDZ-TE-17-12B	
D8806	8-719-158-49	DIODE UDZ-TE-17-12B	
D8807	8-719-158-49	DIODE UDZ-TE-17-12B	
D8808	8-719-158-49	DIODE UDZ-TE-17-12B	
D8809	8-719-158-49	DIODE UDZ-TE-17-12B	
D8810	8-719-158-49	DIODE UDZ-TE-17-12B	
D8811	8-719-158-49	DIODE UDZ-TE-17-12B	
D8812	8-719-158-49	DIODE UDZ-TE-17-12B	
D8813	8-719-158-49	DIODE UDZ-TE-17-12B	
D8814	8-719-158-49	DIODE UDZ-TE-17-12B	
D8900	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8901	8-719-158-49	DIODE UDZ-TE-17-12B	
D8902	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8903	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8904	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8905	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8906	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8907	8-719-158-49	DIODE UDZ-TE-17-12B	
D8908	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8909	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8910	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8911	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8912	8-719-158-49	DIODE UDZ-TE-17-12B	
D8913	8-719-158-49	DIODE UDZ-TE-17-12B	
D8914	8-719-158-49	DIODE UDZ-TE-17-12B	
D8915	8-719-158-49	DIODE UDZ-TE-17-12B	
		< FILTER >	
FL8200	1-236-071-11	ENCAPSULATED COMPONENT	
FL8201	1-233-764-21	FILTER	
FL8203	1-236-071-11	ENCAPSULATED COMPONENT	
FL8302	1-236-071-11	ENCAPSULATED COMPONENT	
FL8304	1-236-071-11	ENCAPSULATED COMPONENT	
FL8308	1-236-071-11	ENCAPSULATED COMPONENT	
FL8801	1-236-071-11	ENCAPSULATED COMPONENT	
FL8802	1-236-071-11	ENCAPSULATED COMPONENT	
		< IC >	
IC8101	8-759-576-76	IC TDA2822D013TR	
IC8150	8-759-478-90	IC U2861B-MFP-G3	
IC8151	8-752-072-94	IC CXA1875AM-T4	
IC8200	8-759-654-42	IC MSP3410D-C5QA-B4	
IC8201	8-759-701-36	IC MC3403NS-E20	
IC8202	8-759-908-15	IC TL431CZ	
IC8301	8-752-096-06	IC CXA2163Q-T6	
IC8302	8-759-485-79	IC TC7SET08FU(TE85R)	
IC8601	8-759-182-88	IC PQ09TZ5U	
IC8602	8-759-576-72	IC LF50CDT-TR	
IC8603	8-759-576-72	IC LF50CDT-TR	
IC8604	8-759-576-72	IC LF50CDT-TR	
IC8801	8-752-096-83	IC CXA2149AQ-TL	
		< SOCKET >	
J8901	1-774-747-11	JACK BLOCK, PIN	

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< COIL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
L8150	1-414-757-11	INDUCTOR 100UH	
L8200	1-412-006-31	INDUCTOR CHIP 10UH	
L8201	1-412-064-11	INDUCTOR CHIP 100UH	
L8301	1-412-006-31	INDUCTOR CHIP 10UH	

< TRANSISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q8100	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8101	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8150	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8151	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q8152	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q8153	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q8154	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q8156	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8157	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8200	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8201	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8202	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8303	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8305	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8306	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8308	8-729-038-96	TRANSISTOR IMZ1A-T109	
Q8309	8-729-038-96	TRANSISTOR IMZ1A-T109	
Q8310	8-729-038-96	TRANSISTOR IMZ1A-T109	
Q8809	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
Q8814	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8816	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
Q8817	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8818	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8819	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8820	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8901	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q8902	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
JR8101	1-216-295-91	SHORT 0	
JR8402	1-216-295-91	SHORT 0	
R8103	1-216-075-00	RES-CHIP 12K 5% 1/10W	
R8104	1-216-075-00	RES-CHIP 12K 5% 1/10W	
R8105	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8106	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R8107	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R8108	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8109	1-249-389-11	CARBON 4.7 5% 1/4W	
R8110	1-249-389-11	CARBON 4.7 5% 1/4W	
R8111	1-216-033-00	RES-CHIP 220 5% 1/10W	
R8112	1-216-033-00	RES-CHIP 220 5% 1/10W	
R8115	1-216-029-00	RES-CHIP 150 5% 1/10W	
R8116	1-216-029-00	RES-CHIP 150 5% 1/10W	
R8117	1-216-029-00	RES-CHIP 150 5% 1/10W	
R8118	1-216-029-00	RES-CHIP 150 5% 1/10W	
R8150	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8151	1-216-069-00	RES-CHIP 6.8K 5% 1/10W	
R8152	1-216-035-00	RES-CHIP 270 5% 1/10W	
R8153	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R8154	1-216-067-00	RES-CHIP 5.6K 5% 1/10W	
R8155	1-216-043-91	RES-CHIP 560 5% 1/10W	
R8156	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R8157	1-216-067-00	RES-CHIP 5.6K 5% 1/10W	
R8158	1-216-043-91	RES-CHIP 560 5% 1/10W	
R8159	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R8160	1-216-067-00	RES-CHIP 5.6K 5% 1/10W	
R8161	1-216-043-91	RES-CHIP 560 5% 1/10W	
R8162	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8163	1-216-295-91	SHORT 0	
R8164	1-216-295-91	SHORT 0	
R8165	1-216-295-91	SHORT 0	
R8167	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8168	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8174	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
R8175	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
R8176	1-216-295-91	SHORT 0	
R8178	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R8200	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8201	1-216-295-91	SHORT 0	
R8202	1-216-021-00	RES-CHIP 68 5% 1/10W	
R8203	1-216-069-00	RES-CHIP 6.8K 5% 1/10W	
R8204	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8205	1-216-069-00	RES-CHIP 6.8K 5% 1/10W	
R8206	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8208	1-216-037-00	RES-CHIP 330 5% 1/10W	
R8209	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R8210	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8211	1-216-295-91	SHORT 0	
R8212	1-216-295-91	SHORT 0	
R8213	1-216-295-91	SHORT 0	
R8216	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8217	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8218	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8219	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8220	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8221	1-216-025-91	RES-CHIP 100 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R8222	1-216-295-91	SHORT 0	
R8223	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8224	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8225	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8226	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8227	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8228	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8229	1-216-295-91	SHORT 0	
R8230	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R8231	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8232	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8233	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8234	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8235	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8236	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8237	1-216-043-91	RES-CHIP 560 5% 1/10W	
R8238	1-216-063-91	RES-CHIP 3.9K 5% 1/10W	
R8239	1-216-069-00	RES-CHIP 6.8K 5% 1/10W	
R8240	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
R8243	1-216-021-00	RES-CHIP 68 5% 1/10W	
R8300	1-216-295-91	SHORT 0	
R8302	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8306	1-216-083-00	RES-CHIP 27K 5% 1/10W	
R8308	1-216-039-00	RES-CHIP 390 5% 1/10W	
R8310	1-216-037-00	RES-CHIP 330 5% 1/10W	
R8312	1-216-091-00	RES-CHIP 56K 5% 1/10W	
R8313	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R8314	1-216-295-91	SHORT 0	
R8315	1-216-121-91	RES-CHIP 1M 5% 1/10W	
R8316	1-216-037-00	RES-CHIP 330 5% 1/10W	
R8317	1-216-295-91	SHORT 0	
R8318	1-216-295-91	SHORT 0	
R8319	1-216-295-91	SHORT 0	
R8320	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8322	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8323	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8324	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8326	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8328	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8329	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8330	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8331	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8332	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8333	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8334	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8336	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8337	1-216-041-00	RES-CHIP 470 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R8338	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8339	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8340	1-216-063-91	RES-CHIP 3.9K 5% 1/10W	
R8341	1-216-041-00	RES-CHIP 470 5% 1/10W	
R8344	1-216-091-00	RES-CHIP 56K 5% 1/10W	
R8345	1-216-079-00	RES-CHIP 18K 5% 1/10W	
R8346	1-216-091-00	RES-CHIP 56K 5% 1/10W	
R8347	1-216-079-00	RES-CHIP 18K 5% 1/10W	
R8350	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8806	1-216-085-00	RES-CHIP 33K 5% 1/10W	
R8807	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8820	1-216-295-91	SHORT 0	
R8826	1-216-051-00	RES-CHIP 1.2K 5% 1/10W	
R8838	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8839	1-216-085-00	RES-CHIP 33K 5% 1/10W	
R8840	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8841	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8846	1-216-295-91	SHORT 0	
R8848	1-216-035-00	RES-CHIP 270 5% 1/10W	
R8850	1-216-033-00	RES-CHIP 220 5% 1/10W	
R8851	1-216-059-00	RES-CHIP 2.7K 5% 1/10W	
R8853	1-216-051-00	RES-CHIP 1.2K 5% 1/10W	
R8854	1-216-029-00	RES-CHIP 150 5% 1/10W	
R8855	1-216-031-00	RES-CHIP 180 5% 1/10W	
R8857	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8858	1-216-079-00	RES-CHIP 18K 5% 1/10W	
R8859	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8861	1-216-295-91	SHORT 0	
R8863	1-216-295-91	SHORT 0	
R8865	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8866	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8867	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8868	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8869	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8871	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8872	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8873	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8874	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8875	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8876	1-216-093-91	RES-CHIP 68K 5% 1/10W	
R8877	1-216-093-91	RES-CHIP 68K 5% 1/10W	
R8878	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8879	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R8880	1-216-295-91	SHORT 0	
R8881	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8882	1-216-079-00	RES-CHIP 18K 5% 1/10W	
R8883	1-216-645-11	METAL CHIP 560 0.5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R8885	1-216-645-11	METAL CHIP 560 0.5% 1/10W	
R8886	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8888	1-216-033-00	RES-CHIP 220 5% 1/10W	
R8889	1-216-033-00	RES-CHIP 220 5% 1/10W	
R8890	1-216-295-91	SHORT 0	
R8892	1-216-295-91	SHORT 0	
R8893	1-216-295-91	SHORT 0	
R8895	1-216-295-91	SHORT 0	
R8900	1-216-039-00	RES-CHIP 390 5% 1/10W	
R8901	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8902	1-216-039-00	RES-CHIP 390 5% 1/10W	
R8903	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8904	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8905	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8906	1-216-035-00	RES-CHIP 270 5% 1/10W	
R8907	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8908	1-216-035-00	RES-CHIP 270 5% 1/10W	
R8909	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8911	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8913	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8914	1-216-071-00	RES-CHIP 8.2K 5% 1/10W	
R8915	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8916	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8917	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8918	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8919	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8922	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8923	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8924	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8925	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8926	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8927	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8928	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8929	1-216-039-00	RES-CHIP 390 5% 1/10W	
R8930	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8931	1-216-039-00	RES-CHIP 390 5% 1/10W	
R8932	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8933	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8934	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8935	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8936	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8937	1-216-035-00	RES-CHIP 270 5% 1/10W	
R8938	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8939	1-216-035-00	RES-CHIP 270 5% 1/10W	
R8940	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8941	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8942	1-216-009-91	RES-CHIP 22 5% 1/10W	
R8943	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8944	1-216-071-00	RES-CHIP 8.2K 5% 1/10W	
R8945	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8946	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8947	1-216-039-00	RES-CHIP 390 5% 1/10W	
R8948	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8949	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8950	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8951	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8952	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8953	1-216-035-00	RES-CHIP 270 5% 1/10W	
R8954	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8955	1-216-039-00	RES-CHIP 390 5% 1/10W	
R8956	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R8957	1-216-025-91	RES-CHIP 100 5% 1/10W	
R8958	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8959	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8960	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8961	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8962	1-216-071-00	RES-CHIP 8.2K 5% 1/10W	
R8963	1-216-113-00	RES-CHIP 470K 5% 1/10W	
R8964	1-216-035-00	RES-CHIP 270 5% 1/10W	
R8965	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8968	1-216-022-00	RES-CHIP 75 5% 1/10W	
R8969	1-216-017-91	RES-CHIP 47 5% 1/10W	
R8974	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R8977	1-216-037-00	RES-CHIP 330 5% 1/10W	
R8978	1-216-037-00	RES-CHIP 330 5% 1/10W	
R8979	1-216-045-00	RES-CHIP 680 5% 1/10W	
R8980	1-216-045-00	RES-CHIP 680 5% 1/10W	
R8981	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R8982	1-216-079-00	RES-CHIP 18K 5% 1/10W	
R8996	1-216-059-91	RES-CHIP 2.7K 5% 1/10W	
R8997	1-216-071-00	RES-CHIP 8.2K 5% 1/10W	
R8998	1-216-041-91	RES-CHIP 470K 5% 1/10W	

< CRYSTAL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
X8200	1-781-148-21	VIBRATOR, CRYSTAL	
X8301	1-781-612-11	VIBRATOR, CRYSTAL	

*A-1644-108-A VM Board, Complete

REF. NO.	PART.NO	DESCRIPTION	REMARK
	4-382-854-11	SCREW (M3X10), P, SW (+)	
		< CAPACITOR >	
C5400	1-107-883-11	ELECT 330UF	20.00% 16V
C5401	1-126-935-11	ELECT 470UF	20.00% 16V
C5402	1-137-150-11	MYLAR 0.01UF	5.00% 50V
C5403	1-126-935-11	ELECT 470UF	20.00% 6.3V
C5405	1-126-933-11	ELECT 100UF	20.00% 16V
C5406	1-126-935-11	ELECT 470UF	20.00% 6.3V
C5407	1-107-364-11	MYLAR 0.01UF	10.00% 200V
C5408	1-107-364-11	MYLAR 0.01UF	10.00% 200V
C5409	1-107-649-11	ELECT 2.2UF	20.00% 250V
C5410	1-130-471-00	MYLAR 0.001UF	5.00% 50V
C5411	1-130-471-00	MYLAR 0.001UF	5.00% 50V
C5412	1-126-935-11	ELECT 470UF	20.00% 16V
C5413	1-126-935-11	ELECT 470UF	20.00% 16V
C5414	1-107-652-11	ELECT 10UF	20.00% 250V
C5415	1-107-363-91	MYLAR 0.0068UF	10.00% 200V
C5417	1-102-959-91	CERAMIC 22PF	5.00% 50V
C5418	1-102-947-00	CERAMIC 10PF	0.50PF 50V
		< CONNECTOR >	
CN5402	*1-568-878-51	PIN, CONNECTOR 3P	
CN5444	*1-770-723-11	CONNECTOR, BOARD TO BOARD 8P	
CN5602	*1-568-881-51	PIN, CONNECTOR 6P	
		< DIODE >	
D5400	8-719-991-33	DIODE 1SS133T-77	
D5401	8-719-510-02	DIODE D1NS4-TR	
D5402	1-535-143-61	LEAD, JUMPER (5.00MM)	
D5403	8-719-991-33	DIODE 1SS133T-77	
D5404	8-719-991-33	DIODE 1SS133T-77	
D5405	8-719-924-11	DIODE MTZJ-T-77-22	
D5406	8-719-924-11	DIODE MTZJ-T-77-22	
		< FERRITE BEAD >	
FB5400	1-535-143-61	LEAD, JUMPER (5.00MM)	
FB5401	1-535-143-61	LEAD, JUMPER (5.00MM)	
		< COIL >	
L5400	1-410-784-41	INDUCTOR 0.18UH	
L5401	1-408-602-31	INDUCTOR 8.2UH	

REF. NO.	PART.NO	DESCRIPTION	REMARK
		< TRANSISTOR >	
Q5400	8-729-119-78	TRANSISTOR 2SC1740S-RT	
Q5401	8-729-119-78	TRANSISTOR 2SC1740S-RT	
Q5402	8-729-119-78	TRANSISTOR 2SC1740S-RT	
Q5403	8-729-119-78	TRANSISTOR 2SC1740S-RT	
Q5404	8-729-026-39	TRANSISTOR 2SA933AS-RT	
Q5405	8-729-026-39	TRANSISTOR 2SA933AS-RT	
Q5406	8-729-045-05	TRANSISTOR 2SA2005	
Q5407	8-729-045-04	TRANSISTOR 2SC5511	
Q5408	8-729-026-39	TRANSISTOR 2SA933AS-RT	
Q5409	8-729-119-78	TRANSISTOR 2SC1740S-RT	
		< RESISTOR >	
R5401	1-247-843-11	CARBON 3.3K 5%	1/4W
R5402	1-249-413-11	CARBON 470 5%	1/4W
R5403	1-249-393-11	CARBON 10 5%	1/4W
R5404	1-249-420-11	CARBON 1.8K 5%	1/4W
R5405	1-249-425-11	CARBON 4.7K 5%	1/4W
R5406	1-249-425-11	CARBON 4.7K 5%	1/4W
R5407	1-249-399-11	CARBON 33 5%	1/4W
R5408	1-247-807-31	CARBON 100 5%	1/4W
R5409	1-249-409-11	CARBON 220 5%	1/4W
R5410	1-249-401-11	CARBON 47 5%	1/4W
R5411	1-249-401-11	CARBON 47 5%	1/4W
R5412	1-249-429-11	CARBON 10K 5%	1/4W
R5413	1-249-414-11	CARBON 560 5%	1/4W
R5414	1-249-432-11	CARBON 18K 5%	1/4W
R5415	1-247-739-11	CARBON 100 5%	1/2W
R5416	1-249-389-11	CARBON 4.7 5%	1/4W
R5417	1-249-432-11	CARBON 18K 5%	1/4W
R5418	1-249-414-11	CARBON 560 5%	1/4W
R5419	1-249-421-11	CARBON 2.2K 5%	1/4W
R5420	1-249-421-11	CARBON 2.2K 5%	1/4W
R5421	1-249-387-11	CARBON 3.3 5%	1/4W
R5422	1-249-405-11	CARBON 100 5%	1/4W
R5423	1-215-915-11	METAL OXIDE 470 5%	3W
R5425	1-535-143-61	LEAD, JUMPER (5.00MM)	
R5427	1-249-401-11	CARBON 47 5%	1/4W
R5428	1-249-413-11	CARBON 470 5%	1/4W
R5429	1-249-413-11	CARBON 470 5%	1/4W
R5430	1-249-417-11	CARBON 1K 5%	1/4W
R5432	1-249-415-11	CARBON 680 5%	1/4W
R5433	1-249-400-11	CARBON 39 5%	1/4W
R5434	1-249-395-11	CARBON 15 5%	1/4W

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

MISCELLANEOUS

REF. NO.	PART.NO	DESCRIPTION	REMARK
⚠	1-416-654-11	COIL DEMAGNETIC	
	1-452-032-00	MAGNET, DISK; 10MM	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
⚠	1-453-340-11	TRANSFORMER ASSY, FLYBACK (NX4522//U214)	
	1-542-436-11	SPEAKER (24X4CM)	
	1-529-417-11	SPEAKER (8CM)	
	1-452-896-11	COIL, NA ROTATION (RT200)	
⚠	1-571-433-31	SWITCH, PUSH (AC POWER)	
⚠	1-690-270-21	CORD, POWER (WITH CONNECTOR)	
⚠	8-453-011-11	NECK ASSY, (NA-299-M)	
	1-693-339-11	TUNER/VIF(FR) (KV-29FQ65B)	
	1-693-338-11	TUNER/VIF(AEP) (KV-29FQ65E/29FQ65K)	
⚠	8-735-053-05	PICTURE TUBE (M68LNH060X)	
⚠	8-451-504-31	DEFLECTION YOKE (Y29RSC-S)	
⚠	1-251-807-22	CAP ASSY, HIGH VOLTAGE	
	1-790-082-11	CABLE, RF	
	*1-555-716-51	CABLE, PIN	
	1-542-437-11	SPEAKER (2CM)	

ACCESSORIES AND PACKAGING MATERIALS

REF. NO.	PART.NO	DESCRIPTION	REMARK
	4-205-733-21	MANUAL, INSTRUCTION (KV-29FQ65B) (GERMAN/FRENCH/ITALIAN/DUTCH)	
	4-205-733-11	MANUAL, INSTRUCTION (KV-29FQ65E) (DANISH/GERMAN/SPANISH/GREEK/ITALIAN/NORWEGIAN/PORTUGUESE/SWEDISH/FINNISH/TURKISH)	
	4-205-733-31	MANUAL, INSTRUCTION (KV-29FQ65K) (BULGARIAN/CZECH/ENGLISH/HUNGARIAN/POLISH/RUSSIAN)	
	*4-029-168-01	BAG, PROTECTION	
	*4-205-198-01	INDIVIDUAL CARTON	
	*4-205-199-01	CUSHION (UPPER) (ASSY)	
	*4-205-200-01	CUSHION (LOWER) (ASSY)	

REMOTE COMMANDER

REF. NO.	PART.NO	DESCRIPTION	REMARK
	1-418-572-21	REMOTE COMMANDER (RM-893)	